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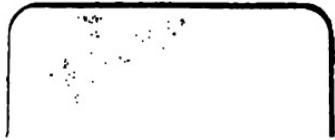
A SUMMARY OF TACTICS.

H. F. MORGAN,

LATE CAPTAIN 28TH REGIMENT.



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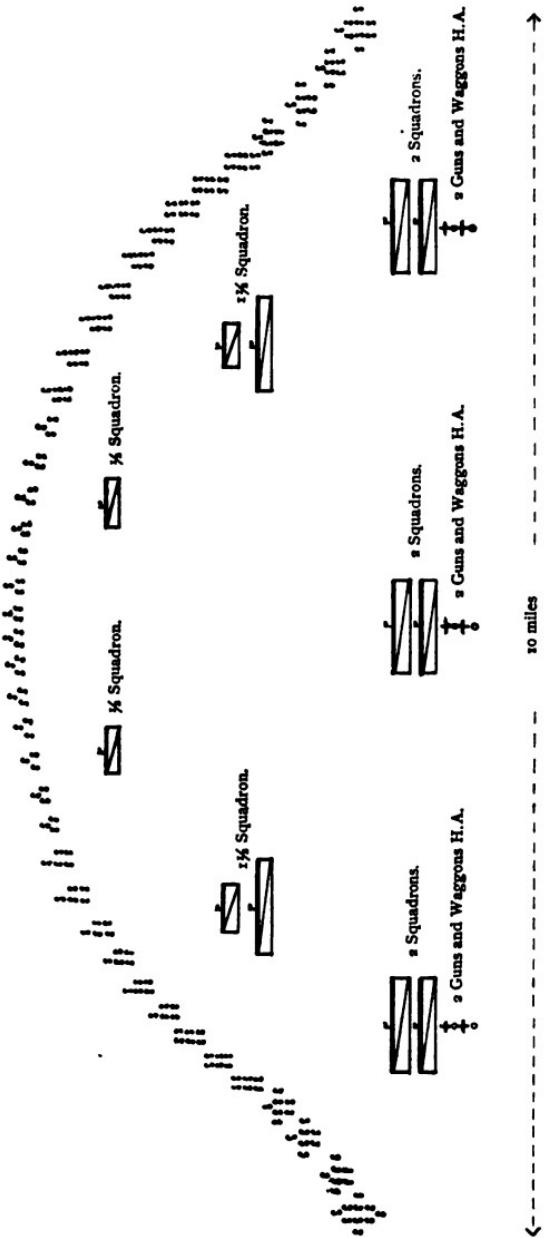
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ARTILLERY SCREENING AN ARMY CORPS.



A SUMMARY OF TACTICS

COMPANION VOLUME TO
“A SUMMARY OF MILITARY LAW”

BY
H. F. MORGAN
LATE CAPTAIN 28TH REGIMENT
AUTHOR OF “THE WHIST-PLAYER’S GUIDE”

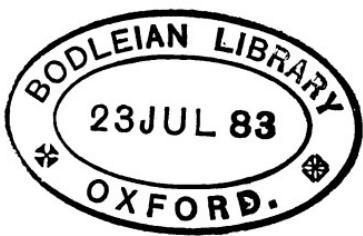


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P R E F A C E.

IN compiling this book and its companion, *A Summary of Military Law*, two objects have been kept in view—*first*, that they may be useful to officers of Militia who are preparing for the competitive examinations for entrance to the Line, &c.; and, *second*, that they may be suitable for the use of officers of the Army who are working for their promotion.

My work has consisted in putting the ~~views of all~~ well-known authorities on the subjects ~~treated~~ into as concise, and at the same time ~~as clear~~ as possible.

The “question and answer” style ~~in which these~~ books are written enables a ~~student to test his~~ knowledge from time to time; ~~and to keep an index~~ appended to each volume ~~on each subject~~, momentary ready reference.

H. F. M.

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A Summary of Tactics.

CHAPTER I.

Definitions.

1. Define Tactics, Strategy, and Administration.

2. What is Mobility?

3. How are Moral and Physical superiority obtained?

A Summary of Tactics.

C H A P T E R I.

Definitions.

Tactics means the art of handling troops in the presence or in the immediate neighbourhood of an enemy.

Strategy is the art of conducting the greater operations of war by movements that take place out of the sight of, or at a distance from, an enemy.

Administration is the art of supplying troops, whether in quarters or in the field, with food, clothing, ammunition, medical requisites, pay, &c.

Mobility is the massing of troops on a certain point at a certain time.

Moral superiority is obtained by strict discipline, former successes, or anything that can influence the soldier.

Physical superiority can only be got by numbers, efficiency, and proper arms.

A Summary of Tactics.

CHAPTER II.
Characteristics of the Three Arms.

4. What are the characteristics of Infantry ?

5. What are the characteristics of Cavalry ?

A Summary of Tactics.

CHAPTER II. Characteristics of the Three Arms.

In peace.—Easy to raise, train, and equip—comparatively inexpensive.

In war.—Combines fire and shock, also fire and motion—easily manœuvred and brought into action—can fight on broken ground—men can use their weapons independently—is self-protecting—can furnish men for trench duties, working parties, &c., which the other arms cannot spare—slow in movement.

In peace.—Very expensive to equip and maintain, and takes longer to train than Infantry.

In war.—Formerly fought by shock alone, but fire has now become indispensable. The force of Cavalry depends on the combined action of man and horse, a combination which may, or may not, be forthcoming at the desired moment. Has power of rapid movement, and can seize momentary opportunities as they occur. Its presence generally produces some moral effect on Infantry at first, which wears off during a campaign. Has little defensive power when

A Summary of Tactics

5. What are the characteristics of Cavalry?

6. What are the characteristics of Artillery?

A Summary of Tactics.

mounted, especially on the flanks. Is useless on steep or broken ground—is easily thrown into disorder, and difficult to rally.

In peace.—Very expensive to equip and maintain, and takes longer to train than Infantry.

In war.—Fights by fire only—has long range—can destroy both men and material—moral effect of shell-fire very great.

In the field it is bulky, complicated, cumbersome, and liable to casualties—occupies great space on the march and in action—cannot easily change position—powerless when moving—offers a large target—has no defensive power on flanks when in action, and frequently requires an escort from the other arms—its action is also affected by wind, fog, &c.

A Summary of Tactics.

CHAPTER III.

Ground in relation to Tactics.

7. In what manner is cover essential to troops?

8. How does ground affect the movement of troops?

9. How is Infantry affected by the ground?

A Summary of Tactics.

CHAPTER III.

Ground in relation to Tactics.

Cover is of great importance in getting troops unseen into position before an action—or during a fight in transferring them from one part to another, or to assist in taking the enemy by surprise. Gentle undulations afford cover from view, as also do hedges, &c. These latter not being shot-proof, ought, as a rule, to be eschewed, for if men collect behind them, they are a better target for the enemy's artillery.

The extent of front on which troops can move depends on the ground. The surface has much influence in regulating the pace, &c. Obstacles such as streams, marshes, canals, &c., greatly retard the advance of troops.

In tactical operations, time is an all-important element, therefore every effort should be made to prevent delay.

By the cover it affords and the extent of front it admits of. Minor features, such as fences, dykes, &c.,

A Summary of Tactics.

9. How is Infantry affected by the ground ?

10. How does ground affect Cavalry ?

11. What effect has ground on Artillery ?

A Summary of Tactics.

although unimportant obstacles to Infantry, afford it protection. Greater obstacles, such as streams, marshes, &c., greatly impede its action. Hence, in attack, cultivated country is the best ; in defence, the country in front cannot be too open. Houses, villages, &c., are only favourable to Infantry in defence.

With the improved fire-arms, Cavalry must have cover to enable it to approach the other arms. This can best be effected by undulating ground, but when once in action, the ground cannot be too open, level, and free from obstacles. Cavalry in a precipitous or wooded country is useless.

The best ground for Artillery is that which possesses an elevated position, with extensive range to front and flank (not so steep as to cause great depression of fire), with little cover in its front.

Obstacles to a limited extent, affording protection from sudden attack, are useful, as also are marshes, ponds, or soft ground. The latter by holding the projectiles lessens their effect.

To sum up—a country moderately undulating, with long gentle slopes, little wood or cultivation, good roads, and sound ground for movement of wheeled carriages, is *the* most suitable for Artillery.

A Summary of Tactics.

CHAPTER IV.

Space and Time required for Formations.

INFANTRY.

12. What is the space required for the formation of Infantry?

A Summary of Tactics.

CHAPTER IV.

Space and Time required for Formations.

INFANTRY.

Each man in front rank takes 2 feet.

In counting the length of front of a Battalion, to the space required for the men in the ranks add that required for an officer per company, and for four extra men (colour party and officer on left of the line).

Column in fours is equal in depth to the length of front in line.

Column is equal in depth to the front in line, less the front of the leading company, plus the depth of the rear company.

The depth of line (including the supernumerary rank) is about nine feet.

Depth of Quarter Column in yards is five times the number of companies, less one, with 3 yards added.

Space between battalions in line is 25 yards, or 30 paces.

Rate of Movement—Quick Time, 120 paces; Double Time, 165 paces.

Ordinary rate per hour, 3 miles.

BATTALION—8 COMPANIES, EACH OF 100 MEN.

A Summary of Tactics.

12. What is the space required for the formation
of Infantry?

CAVALRY.

13. What is the space required for the formation
of Cavalry?

A Summary of Tactics.

The *length of front in line* would be—

800 feet for the men.

24 , colours and officers.

824 feet, or $274\frac{2}{3}$ yards.

Depth of Column $824 - 102 + 9 = 731$ feet.

„ *Quarter Column* $7 \times 5 + 3 = 38$ yards.

CAVALRY.

Each horse is allowed 8 feet in length, and 3 feet of front.

Length of line of front is equal to the number of horses in front rank.

The rear rank is 8 feet from the front rank.

Depth of a Squadron (including all ranks) is 20 yards.

Depth of a Column of Fours (a front of 8) is equal to the front in line.

Sections (depth) is double front of the line.

Half Sections is four times front of the line.

In all Columns the *distance between* the horses is half a length (4 feet).

Between Squadrons in line allow 12 yards.

Pace—Walk, 4 miles ; trot, 8 miles an hour.

Thus Squadrons of 48 files have a front of 48 yards.

Sections—Column would be 96 yards.

A Summary of Tactics.

ARTILLERY.

14. What is the space required for the formation
of Artillery?

A Summary of Tactics.

ARTILLERY.

Each Gun or Wagon with six horses is 15 yards long. Between guns allow 19 yards when they are in line.

Each battery of six guns takes $5 \times 19 = 95$ yards of front.

For manoeuvring, a battery of 6 guns is subdivided into—

- 2 half-batteries of 3 guns,
- or 3 divisions ² ,,
- or 6 subdivisions ,, 1 gun and 1 wagon.

In *Column of Division*, or *Column of Half-Batteries*, each follows the other at wheeling distance.

In *Column of Subdivisions* they follow each other at 19 yards from leader's head to leader's head, or 4 yards from muzzle to nose.

In *Column of Route*, between each gun and wagon there will be an interval of 4 yards.

Thus a *Battery of 6 guns and 6 wagons* in Column of Route would be in length—

$$12 \times 15 = 180 \text{ yards for length of guns and wagons.}$$

$$11 \times 4 = 44 \text{ } ", \text{ for distances between them.}$$

$$\text{Total, } 224 \text{ yards.}$$

Between Batteries, or *between a Battery and any other arm*, $28\frac{1}{2}$ yards is allowed.

A Summary of Tactics

15. EXAMPLE.—A Battalion of 8 Companies, 100 strong, 2 Squadrons of 48 files each, and a Battery of 6 guns, leave a camp—the Infantry in front, Cavalry in rear. Infantry in fours, Cavalry in sections, Artillery in column of route. How long before the last trooper moves off—the general pace 3 miles an hour?

A Summary of Tactics.

The Battalion will occupy on the march $274\frac{2}{3}$ yards.

The Battery " " " 224 "

The 2 Squadrons " " " 192 "

Total, ... $690\frac{2}{3}$ yards.

At 3 miles an hour a mile takes 20 minutes, and each yard $\frac{3}{1760} = \frac{1}{55}$ minute. Therefore 690 yards takes $\frac{690}{55} = 12\frac{6}{55}$, or about $7\frac{7}{8}$ minutes.

Again—

Supposing this force has to deploy for action. The Infantry forming up on the left of the road, Artillery to the right of the road, with the Cavalry on their right. The two last to move at a trot when Infantry has formed up. The Infantry, wheeling sharp to their left, must pass over $274\frac{2}{3}$ yards before they clear the other arms. This will take $\frac{275}{55} = 5\frac{1}{11}$, or about $3\frac{1}{7}$ minutes. The Cavalry must cover.

The length of the battery in column

of route, 224 yards.

The interval between battery and

Infantry, $28\frac{1}{2}$ "

The length of the battery in action, 95 "

The interval between them and the

battery in line, $28\frac{1}{2}$ "

The space of the 2 squadrons in line

and $\frac{1}{2}$ squadron interval, ... 108 "

Total, ... 484 yards.

This, *at a trot*, will take 2 minutes. Thus to deploy this small force takes over 5 minutes.

A Summary of Tactics.

16. EXAMPLE.—An officer on a hill notices that the enemy's Cavalry (moving in fours) at a trot take 12 minutes to pass a church, and that his Artillery (in column of route) at the *same* pace take 10 minutes. Estimate roughly the number of each.

17. A force consisting of 3 Battalions (800 strong) of 8 companies each, moving in fours; 4 Squadrons Cavalry (36 files each) in Sections; and a battery with 6 wagons, in column of route, moving on a road. Calculate the length of the column and the length of front when in line, showing the data in both cases on which the calculations are founded.

A Summary of Tactics.

Cavalry trot 8 miles an hour, or 235 yards per minute. $235 \times 12 = 2820$ yards in 12 minutes.

In fours they take up half the number of men in yards for length of line.

Therefore $2820 \times 2 = 5640$, the approximate number of the Cavalry.

Artillery trot 8 miles an hour, or 235 yards in a minute, and 2350 yards in 10 minutes.

Column of route is $19 \times 12 - 4 \dots = 224$ yards.

Interval between batteries on the road, 19 ,

—
243 yards.

Therefore $\frac{2850}{243} =$ about $9\frac{2}{3}$ the number of batteries.

Infantry in fours = length of front = $\frac{800}{4} \times 2 = 800$ ft.

One officer per company—colours and

officer left of line = 24 ft.

—
824 ft.

Therefore 3 Batts. = $\frac{824 \times 3}{3}$ yds. = 824 yds. } Infantry
2 intervals between Batts. 50 " } in front.
4 Squadrons of 72 men = 288, or 288 " } front.
Interval between Infy. and Artily.... $28\frac{1}{2}$ " } Cavalry
Battery $19 \times 12 - 4 \dots = 224$ " } in rear.
Interval between Artily. and Cavy. $28\frac{1}{2}$ " } rear.

—
1443 yds. on road

A Summary of Tactics.

17. A force consisting of 3 Battalions (800 strong) of 8 companies each, moving in fours; 4 Squadrons Cavalry (36 files each) in Sections; and a battery with 6 wagons, in column of route, moving on a road. Calculate the length of the column and the length of front when in line, showing the data in both cases on which the calculations are founded.



A Summary of Tactics.

LINE.

Infantry in line = number of men *in feet*.

Cavalry in line = half number of men *in yards*.

Battery in line = number of guns less one \times by interval.

Therefore 3 Battalions Infantry take up 824 yards.

2 Intervals between Battalions, 50 "

4 Squadrons Cavalry, ... 144 "

3 Intervals between Squadrons, 36 "

Battery, 95 "

Interval between Infantry

and Artillery, 28½ "

Interval between Cavalry

and Artillery, 28½ "

1206 yards.

A Summary of Tactics.

C H A P T E R V.

Marches.

18. What is necessary to enable a commander properly to carry out a march?

19. What regulates the distribution of the different arms on the march?

A Summary of Tactics.

C H A P T E R V.

Marches.

Celerity in performing it, and efficiency at the end of it. To ensure the latter, the men ought to be in good condition. This can only be arrived at by previous training, and by reducing the weight they have to carry as much as possible.

Length of column produces fatigue, as the pace becomes irregular, and the time taken to effect the march is longer.

The only way to obviate this with a large force, and also to obtain supplies, is to march on several roads. In doing this, great care must be taken that *all* the portions reach the named point at the same time, and that communication is kept up between the various roads on which the troops are moving.

When moving on different roads, and the enemy is at hand, the Infantry, Artillery, and Cavalry of a division should be together, and in the order they would be required to come into action.

Artillery, being now-a-days necessary in the early stages of a fight, should be forward in the column, and Cavalry in the rear.

A Summary of Tactics.

19. What regulates the distribution of the different arms on the march?

20. What precautions should be taken to avoid unnecessary fatigue to the troops?

21. What is a flank march? when is it dangerous, and what are its requisites?

22. What would be the best formation for a force making a flank march?

A Summary of Tactics.

This order is very harassing to the Artillery and Cavalry, who have to regulate their pace to that of the Infantry.

When, therefore, the enemy is at a distance, each arm should move on a different road.

They should not be got under arms sooner than is absolutely necessary, and arrangements should be made for troops to join the line of march direct from their camping ground. An equable pace should be maintained, regular halts should be observed, and strict discipline should be adhered to.

It is a march in which a force exposes its flank to an attack by the enemy, but it is only dangerous when the enemy is at striking distance. Its requisites are highly drilled and disciplined troops, who are able to complete the march quickly, and who are under vigilant and energetic commanders.

The main object being to rapidly execute the movement, and at the same time to be ready to fight if attacked, the formation of several columns moving within easy reach of one another should be carried out if possible. In that case the Cavalry should be placed on the side farthest from the enemy. ¶

A Summary of Tactics.

22. What would be the best formation for a force making a flank march?

23. How is a force making a flank march secured from attack either in front or flank?

24. What is the rule as regards Marshes, Streams, and Ravines, or a defile on a flank?

A Summary of Tactics.

moving on the other side, it might be driven in in disorder on the main body before it had time to form up. The Artillery should be divided between the head and rear of the column, so as to be useful if the force is attacked in front or in flank.

In front by carefully reconnoitring the ground to be covered ; if it contains a defile, it should be occupied —if any obstacles, they should be removed. The flank is best guarded by moving a force parallel to the line of march of the main body, and on the side next the enemy.

In a close country this force is composed principally of Infantry, but in an open country Cavalry should scout still further in the enemy's direction. Cavalry should never be employed alone on this duty—they should always have Infantry to support them.

This force should be under a special commander, and should (as well as the main body) have advanced and rear guards and flankers.

Marshes, Streams, and Ravines should be kept on the side next the enemy, and every precaution taken to conceal the movement. Defiles or other defensible points of passage should be explored, and if possible guarded.

A Summary of Tactics.

23. State where an attempt to make a flank march within reach of the enemy failed.

29. Mention where a flank march was successfully carried out within reach of a superior force of the enemy.

A Summary of Tactics.

Ney, in September, 1813, tried to effect a flank march near Dennewitz, but, neglecting to take the necessary precautions, was defeated by the Crown Prince of Sweden.

The flank march made by the Germans, under Von Werder, near Belfort, in 1871, within reach of a superior French force.

A Summary of Tactics.

C H A P T E R V I.
Advanced Guards.

30. What is the object of Advanced Guards?

31. What are the duties of Advanced Guards?

A Summary of Tactics.

C H A P T E R V I. Advanced Guards.

If a force moved without an Advanced Guard, it would be liable to come unexpectedly in contact with the enemy, and be defeated before it had time to form up. It would be obliged, even if the enemy's force was small, to halt and disperse them. To prevent these delays, and the main body being taken at a disadvantage, is the object of an Advanced Guard.

1. To cover and conceal the march and formations of the main body.
2. To search the country on the front and flanks of the enemy's line of march.
3. To give timely notice of the enemy's approach, and to keep him in check until the column has had time to prepare for action.
4. To remove obstacles and facilitate the march of the main column.

A Summary of Tactics.

32. What regulates the strength and composition of an Advanced Guard?

33. How are the flanks of an Advanced Guard secured?

34. What regulates the distance between an Advanced Guard and the force it is preceding?

A Summary of Tactics.

The fewer troops removed from the immediate control of the Commander the better; but, as a rule, it should not be less than one-fourth with a large force, or one-eighth of a small one. A large Advanced Guard has the disadvantage that its commander might engage in an action beyond his powers to bring to a decision. Thus his force might be endangered to an extent that would oblige the main body to come to its support, and an action would then be entered into quite averse to the intentions of the commander of the whole. The Advanced Guard is usually composed of the three arms, but a great deal depends on the distance they are required to precede the main body (sometimes they are pushed forward a considerable distance to secure a post), the object contemplated, and the nature of the country.

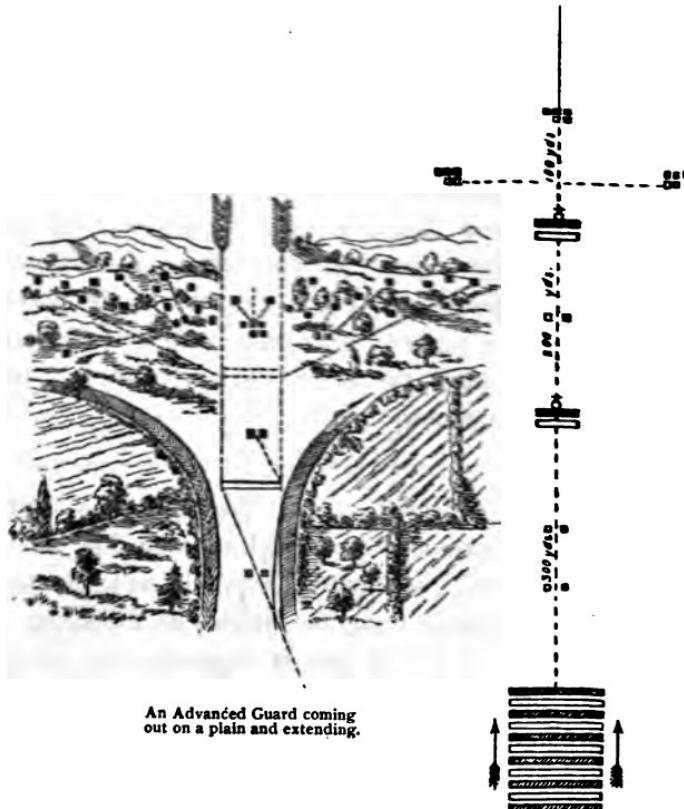
These are generally secure if the advanced Cavalry patrols have extended far enough on each side.

In a mountainous country it would be safer to move parties of Infantry along the heights on the flanks, if they admit of it. If this is impracticable, troops should be detached to hold commanding positions while the column moves past.

It should be far enough in front to give the main body time to form up for action, and not so far as to risk being cut off.

A Summary of Tactics.

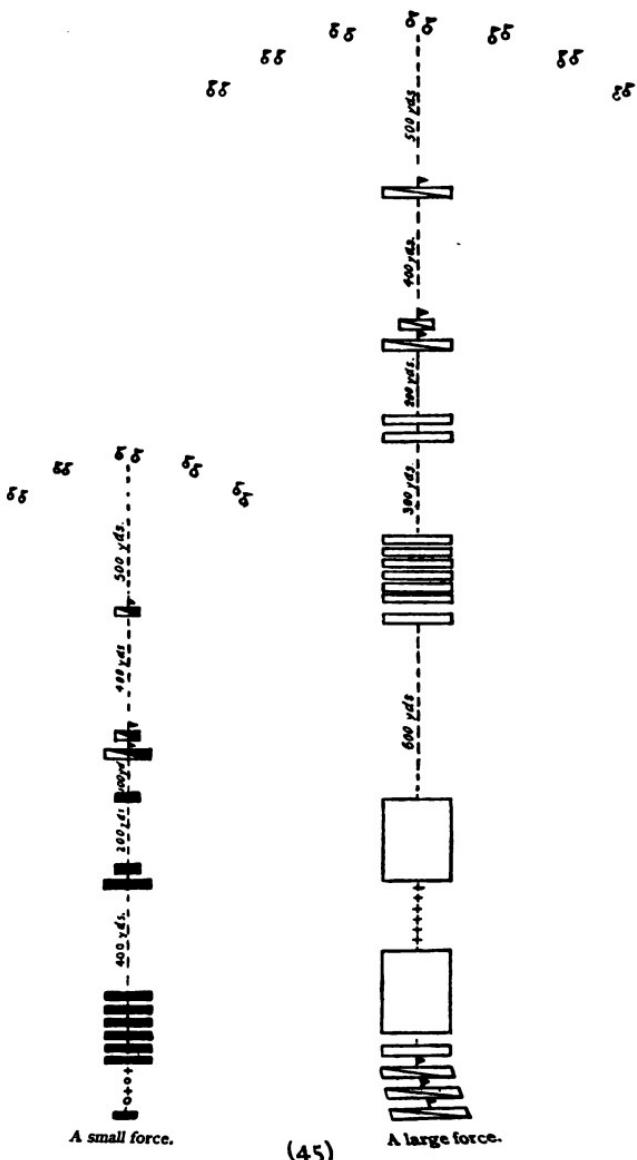
35 Give rough sketches of the formations of Advanced Guards.



An Advanced Guard coming out on a plain and extending.

An Advanced Guard on the line of march on a road.

A Summary of Tactics.



A Summary of Tactics.

36. What considerations regulate the position of the Cavalry, Artillery, and Sappers?

37. How should an Advanced Guard act on meeting the enemy?

A Summary of Tactics.

Cavalry, from its great mobility, is the most suitable arm for reconnoitring. A portion of this arm is therefore used to supply the absolute front of an Advanced Guard. Small patrols are pushed out well to the front and flanks. These are supported by other Cavalry, at about 500 yards, with a larger force behind it, at a further distance of 400 yards. The remainder of the Cavalry move in rear of the Advanced Guard. There it cannot impede the Infantry in coming into action, but at the same time, when required, it can move rapidly to any point.

Attacks of the present day are all opened by *Artillery*, to oblige the enemy to deploy at a distance. It is therefore advisable that *Artillery* should be forward in the column. In a *hilly country*, or where the front is restricted, it is ABSOLUTELY necessary some guns should be with the vanguard. In that position they run no risk of capture, as the enemy can only advance on an equal front to that of the vanguard, and they are ready to silence any of the enemy's guns posted on the neighbouring heights, which would otherwise check the progress of the Advanced Guard.

Sappers should always be with the front portion of the Infantry, to remove obstacles, repair bridges, &c.

- i. On first sighting the enemy, send back intelligence.

A Summary of Tactics.

37. How should an Advanced Guard act on meeting the enemy?

38. How does an Advanced Guard act on approaching a village, town, wood, or any place that could conceal the enemy? What is done when hollow roads or defiles are met with?

39. Give an example of an Advanced Guard holding in check a superior force of the enemy.

A Summary of Tactics.

2. Unless any special orders have been issued, attack at once if he appears weak or hesitating, because it is part of the duty of an Advanced Guard to prevent any delay in the march of the main body.
 3. If the enemy attacks you, choose the nearest favourable ground ; call up every available man and gun, and resist to the utmost.
 4. If, on attacking an enemy, you dislodge him, or if, when he attacks you, you repulse him, the Advanced Guard must be re-formed. Although pursuit is avoided, the enemy should be followed up so as to keep the touch.
 5. An Advanced Guard must sacrifice itself to the last man rather than allow the enemy to push it back, and open artillery fire on the main body before it has had time to prepare.
-

The Advanced Guard should halt, and send men to turn the flanks—threaten the rear, and carefully examine it. On ascertaining that it is clear, they advance, and quickly push through, taking possession of the outlet at the farthest end. *Hollow roads* and *defiles* must similarly be occupied by parties on the flanks, who should precede those on the road itself.

The 5th Prussian Corps under the Crown Prince at Nachod in 1866.

A Summary of Tactics.

CHAPTER VII.

Outposts.

—••—

40. What are outposts?

41. What are the duties of outposts?

42. What points should be especially noted by outposts?

43. What is the best position for an outpost?

A Summary of Tactics.

CHAPTER VII.

Outposts.

Detachments thrown out by a force when halted, to protect it from surprise.

Observation and *resistance*, by means of which security and rest are obtained.

Observation gives timely warning of danger to the main body.

Resistance gives the main body time to prepare for defence.

Carefully watch all approaches leading from the enemy.

Observe all the enemy's movements, and report them *at once*.

When the enemy attempt to advance, do all you can to delay them.

It should cover the front and flanks of the main body, and, in order to obtain a good position for observation and resistance, should have its general front placed along a commanding ridge, the edge of a wood, or a river-line.

A Summary of Tactics.

44. What regulates the composition of the outposts?

45. What proportion should the outposts bear to the main body?

46. What distance should the outposts be from the main body?

A Summary of Tactics.

The nature of the country, and whether the enemy are close at hand or at a distance. When the enemy are at a distance, and the country open, Cavalry will chiefly perform the work ; but in a close country, with the enemy near, it is on the Infantry that it will fall. The co-operation of Cavalry and Infantry is essential —Cavalry to push well forward, and the Infantry to secure their retreat, and give them time to rally.

The *Field Exercise* says it should not exceed one-sixth, but its strength should be the smallest that can ensure security. A great deal depends on the nature of the country, the proximity and character of the enemy. If there are defensible positions, a smaller force can be used ; but if the enemy is at hand, and vigilant, a force to offer a determined resistance is necessary.

Sufficiently distant to give the main body time to form up, and not so far as to be in danger of being cut off. The country has much influence. It may be obligatory to push them forward to obtain a view of the country beyond, or in a close country they may be kept closer to the main body.

A Summary of Tactics.

47. How are outposts subdivided ?

48. What are the duties of a commander of the outposts ?



A Summary of Tactics.

Into sentries or vedettes, picquets, supports (if required), and reserves, all under an outpost commander. If the length of front is considerable, there should be a commander every three miles.

He receives his orders from superior authority, and the line to be occupied is pointed out to him. He then regulates the distribution of the force. He carefully examines the ground before the arrival of the troops—fixes the line of sentries—defines the extent of front of each picquet, and selects the position for the supports and reserves. If his flanks do not rest on natural obstacles, he sees that they are thrown back, or are secured by detachments. He should pay particular attention to all paths or roads leading from the enemy. He should inspect the sentries and picquets after they are posted, and make any alterations he considers best. After sifting any information he obtains, he should report it at once to the officer in command of the main body.

He should give the following instructions (*to be taken down in writing*) to the subordinate officers:—

1. The general line of front of the outposts.
2. The exact ground each should occupy.
3. What is known of the position and probable movements of the enemy.
4. The directions in which it is most advisable to patrol.

A Summary of Tactics.

48. What are the duties of a commander of the outposts?

49. What is the average extent of front for picquets?

50. How are the sentries posted?

A Summary of Tactics.

5. How to act in case of attack.
6. The extent to which any post should be fortified.
7. How flags of truce, deserters, &c., are to be received.
8. The nature and frequency of reports.

If any changes are to be made in the positions at night, it should be notified to the officers beforehand, so that they can examine the new positions in daylight.

From 800 to 1,000 yards for Infantry, and 1,600 to 2,000 for Cavalry.

The officer in command of the picquet, for safety's sake, marches it to the ground as an advanced guard. He notes the positions for defence and the ground generally on his line of march. When he reaches the ground allotted to his picquet, he detaches a party to his front, either as a patrol or in skirmishing order, and under cover of this party posts his sentries (double, and in a connecting chain) in the best available positions, and communicating with those of the adjoining picquets. Sentries are usually relieved every two hours.

A Summary of Tactics.

51. State the principal points to be observed in posting sentries.

52. What information should be given to a sentry?

53. How are sentries protected from surprise when posted in a defile?

54. If a wood is in the line of outposts, how are the sentries posted?

55. If the enemy approach a sentry, how should he act?

A Summary of Tactics.

1. An extensive view to the front and flanks.
 2. Concealment from the enemy.
 3. Connection with the neighbouring sentries.
 4. Communication with the picquet.
 5. Clear view of all approaches.
 6. No ground between sentries to be unseen by both.
 7. Take advantage of ground to economise sentries.
-

1. The position of the picquet.
 2. The direction of the enemy.
 3. The position of the neighbouring sentries.
 4. The position of the examining guard.
-

By erecting obstacles in their front.

If possible, along the outer edge ; but if the wood is very extensive, it may either be unoccupied, or have the sentries withdrawn to a safe distance on the near side. If, however, it is absolutely necessary to carry sentries through the wood, they should be posted along a high road, stream, or valley, so as to get a better view.

Signal to the picquet ; but if *convinced* that they mean to attack, he should fire at once.

A Summary of Tactics.

56. If the "cordon" system is used at night as well as by day, ought the sentries at night to be changed to other positions?

57. What course ought to be adopted by sentries if deserters, bearers of flags of truce, or other persons approach their posts?

58. What is the strength of the examining guard? What are its duties, and where is it posted?

A Summary of Tactics.

By day the sentries are usually posted on heights, but at night they should be advanced, and pushed down the hill, where they would have the benefit of seeing their opponents without being seen.

Deserters should be ordered to halt, and lay down their arms. They should then be guided unarmed to the picquet.

Flags of truce.—The bearer should be kept some distance in front of the line while the commander of the picquet is being communicated with. He should neither be able to obtain any information nor to reconnoitre the position. Not more than *one* person should be allowed to approach a sentry at a time, and no one should pass through the line except where the examining guard is posted. A sentry should shoot any one who disregards a *repeated challenge*.

It usually consists of a non-commissioned officer and four men. It is posted on one of the main roads leading from the enemy. Its duties are to examine anyone wishing to pass through the line of sentries, give or refuse permission, or send in a report to await the instructions of superior authority.

A Summary of Tactics.

59. What is the strength of a picquet, and what is it required to furnish?

60. What distance ought a picquet to be from its sentries?

61. What is the best position for a picquet by day and by night? Should it occupy any buildings near it? What should be done if in a defile, near an unoccupied wood, or on the flanks of a line? Should fires be lighted?

A Summary of Tactics.

Its strength is regulated by—

1. The number of sentries and patrols it has to furnish.
2. The amount of resistance it has to make. .
3. The number manageable under one command.

It usually consists of from 40 to 50 for Infantry, and 20 to 30 for Cavalry. It is divided into three reliefs, so that six men are required for each sentry post. It has also to furnish patrols. The number of these depend on the country. In a close country, sentries are reduced and patrols increased.

If possible, not more than 400 yards for Infantry and 1,000 for Cavalry. When *all* the sentries cannot be seen by the picquet, an intermediate sentry should be posted.

The best position for a picquet is in rear of the centre of its sentries. This position cannot always be secured, as in posting a picquet care must be taken to command all approaches from the enemy, and at the same time be under cover, if possible. It must also have communication with its sentries, neighbouring picquets, supports, and reserves, with (*above all*) a good line of retreat. *At night* it should be posted nearer to its sentries. If there is a road leading from

A Summary of Tactics.

61. What is the best position for a picquet by day and by night? Should it occupy any buildings near it? What should be done if in a defile, near an unoccupied wood, or on the flanks of a line? Should fires be lighted?

62. If there is a chance of a picquet being attacked at night, what is done?

63. With Cavalry picquets, what is the rule as regards feeding, &c.?

A Summary of Tactics.

the enemy, or a beaten track, it should be placed close to it.

A picquet should not occupy any *buildings*, &c., without authority.

If posted in a *defile*, obstacles should be erected to secure it from a sudden rush of the enemy.

With an *unoccupied wood* near it, the picquet should be posted some distance on the near side of it, where it cannot be surprised.

If the picquet is *on the flanks* of the line, it should secure itself by a detached party.

Fires should not be lighted without authority, and then out of sight of the enemy. A few *Cavalry orderlies* are advisable to carry reports.

To insure the immediate action of a portion of the picquet, a certain proportion are separated from the rest, and kept under arms.

Only one-half should be fed at a time. Saddles should not be removed more than once in 12 hours, and bridles only for feeding or watering. If water is at a distance, only a few horses should be taken to it at a time.

A Summary of Tactics.

64. What is substituted for the "cordon" system at night?

65. What patrols are furnished by the picquets?

A Summary of Tactics.

Double sentries, with their reliefs at hand, will be posted on the roads, paths, or other avenues. These sentries are not so much for resistance as for signalling any advance of the enemy.

The ground between them will be constantly patrolled by patrols taken from the day sentries, and usually consisting of a non-commissioned officer and two men.

Visiting and Reconnoitring.

Visiting patrols are sent between reliefs along the front to ascertain if they are alert—whether they have anything to report, or require assistance to examine doubtful objects. Usual strength, a non-commissioned officer and two men. This party, on leaving the picquet, should communicate with the sentries of the picquet on its right (or left), proceed cautiously along the front of the line of sentries, communicate with the sentries of the picquet at the other flank, and return to the picquet in rear of the sentries.

All woods, ravines, or other places where enemy could collect should be patrolled, and in foggy weather sentries should be constantly visited.

Reconnoitring patrols must be sent along the roads in the direction of the enemy, as a general rule, for a distance of from three-quarters to one mile. These patrols, being only required to reconnoitre, and not

A Summary of Tactics.

65. What patrols are furnished by the picquets?

66. What is the object of *strong* patrols, and by what portion of the outpost line are they furnished?

67. What are the duties of an officer commanding a picquet?

A Summary of Tactics.

to fight, should consist of the smallest number able to perform the required duty.

They should have sharp, intelligent men to precede them. The roads would usually be chosen by the enemy for their advance in a close country, but the patrolling party should listen occasionally for any sounds of men moving through woods or fields.

If they meet the enemy, they should avoid firing, unless he is determined to advance, when they should fire, so as to give timely notice to the picquet.

Their object is to ward off the enemy's reconnoitring patrols, or dislodge his post to see what is behind it. When stratagem fails, they should act on the offensive. They should rarely advance more than a mile, and should be accompanied by a mounted orderly to take back information. These patrols are furnished by the supports or reserve. Sometimes they are sent out before daybreak, but in that case they should be cautious not to fall in with the enemy's columns waiting for daylight to attack.

1. To take down the instructions given him by the commander of the outposts.
2. To do all he possibly can to secure his post against surprise.

A Summary of Tactics.

67. What are the duties of an officer commanding a picquet?

68 In case of attack, what course should the picquet pursue if it be forced back, and what should it do if the enemy again retires?

A Summary of Tactics.

3. Acquaint himself (as minutely as possible) with the country around, but not go beyond the reach of his picquet by day.
 4. Reconnoitre all paths and roads, and note their direction.
 5. Examine all obstacles, and all places near that might conceal the enemy. If marshes or streams, ascertain where passable.
 6. If any eminence near at hand, post one or two men on it with a telescope.
-

Reinforce the sentries, and send word at once to the neighbouring picquets and supports. Hold their ground till their flanks are turned, and if obliged to retire, do so in skirmishing order, and disputing every yard of the ground. Care must be taken that in their retreat they do so clear of any of the outposts, and thus enable the latter to attack the enemy either in front or flank.

If the enemy is driven back or withdraws, the picquets should resume old positions, but not pursue. Cavalry should follow up the enemy, and ascertain where he halts.

If the attack is made *at night*, the sentries should fall back on the picquet, who, being posted to meet an attack, would meet the enemy at a great advantage.

A Summary of Tactics.

69. What should a picquet report (sent to inform the commander of the outposts that something has occurred) specify?

70. What is the object of supports? Where are they posted?

A Summary of Tactics.

1. The picquet it comes from.
 2. The hour of despatch.
 3. How the information was obtained.
 4. Whether believed to be true.
 5. The particulars of the enemy's force, if seen.
-

Supports are to assist the picquets in case of attack, and are usually of Infantry. In a very open country, Cavalry may be used. One support is enough for two or three picquets. The ground regulates their position, but they must be near enough to be useful, and not too near to be involved in the retreat of the picquets if they are driven in. The distance between supports and picquets is laid down in the *Field Exercise* as between 300 and 600 yards, while *Clery* gives it as from 600 to 800 yards.

A good place for an *Infantry* support is a village or defile on the line of retreat. A Cavalry support must have open ground.

Supports should keep up communication with the neighbouring supports, and with the reserve, in addition to its own picquets. This is best done by patrols. There should be a sentry or two to provide immediate security to the supports.

A Survey

69. What should a pilot do if the commander of the aircraft he is flying in occurs a species?

70. What is the duty of a pilot when they posted?

A Summary of Tactics.

The Reserve, which forms a pivot of resistance to the whole, should be posted centrally. It usually consists of the three arms, and generally advances to support the picquets when attacked. Artillery (of the Reserve) remains limbered up, except in the defence of a defile, when it would be unlimbered ready for action. Cavalry and Artillery horses to be kept bridled and harnessed, and fed in reliefs.

Distance between Reserve and Support—*Field Exercise*, 400 to 600; *Clery*, half-a-mile to one mile.

The reserve may be divided if there are two important points, some distance from one another, to be held, such as bridges, defiles, &c.

Weissenburg—300 men to the mile.

Worth—400 men to the mile.

Mincio—250 men to the mile.

Custoza—640 men to the mile.

Sona and Dossobuono, which was very open country, only required 150 men to the mile.

Colombey—800 men to the mile.

A Summary of Tactics.

CHAPTER VIII.

Reconnoitring.

73. By what means do you discover the movements and position of the enemy, and how are your own movements on the march screened from observation?

74. On whom do these duties usually devolve?

75. How is screening performed by a Cavalry division? (*See Frontispiece.*)

A Summary of Tactics.

C H A P T E R V I I I.

Reconnoitring.

To have accurate information of the enemy, you must keep constantly in contact with him by means of your light troops. If he is halted, reconnoitring parties should be pushed up to his position ; while, if he is advancing, and still at a distance, they should advance to meet him.

These parties perform a double duty. They form a screen through which the enemy cannot penetrate, and he is also kept in ignorance of your strength and movements.

If a division is by itself, its divisional Cavalry perform the screening and reconnoitring duties ; but if a larger force is advancing on several roads, it is the Cavalry division who would have to push out far in advance, and draw a curtain round the movements of the whole.

A Cavalry division usually consists of six regiments, forming two brigades. The distance it precedes the force depends on circumstances, but, if possible, it should keep in contact with the enemy as long as it is

A Summary of Tactics.

75. How is screening performed by a Cavalry division? (*See Frontispiece.*)

76. Into what heads is reconnaissance divided? What is their object?

77. What regulates the composition and strength of reconnoitring parties?

A Summary of Tactics.

not in danger of being cut off. It *echelons* towards the enemy in small parties, diminishing in strength from the rear to the front, and spreading out like a fan. Thus the most advanced portion consists of only a few men, but these require supports to fall back on, and to prevent the enemy penetrating the screen thus formed. The extent of front may be about 20 miles, as this would be within the power of a commander to control.

Reconnoitring in force and in small parties.

Small reconnoitring parties are used—

1. To search for the enemy, discover his movements, and estimate his numbers.
 2. To approach close to an enemy's position and examine it in detail.
 3. To explore a limited area of country, and see if the enemy is occupying it.
-

Unless the country is intricate, when Infantry alone must be employed, Cavalry perform almost the entire duties of reconnoitring. Infantry should, however, be pushed forward to hold bridges, defiles, &c., through which Cavalry may have to retire.

The object of a reconnoitring party being to see as much as it can and not be seen, its strength need only be sufficient to make head against similar parties of the enemy. From 5 to 50 Cavalry, and 50 to 100

A Summary of Tactics.

77. What regulates the composition and strength of reconnoitring parties?

78. What precautions should be taken before starting?

79. How should a reconnoitring party be formed to guard against surprise?

80. State the principal measures and precautions to be adopted in reconnoitring a country.

A Summary of Tactics.

Infantry, would usually be the strength. On particular occasions, *a reconnaissance is made by a large mixed force*, that advances boldly, drives in the enemy's outposts, and *seizes* the information required.

The party should be carefully inspected, to see that all are fit for severe work, and that the horses are properly shod. If necessary, the men should be provided with rations for themselves and their horses. If the commander cannot obtain a map, he should look one over, and note in his memory its leading features. A trustworthy guide should be procured, if possible.

Two or three troopers in advance, supported by a stronger party; a couple of flankers on each side, and a few men as a rear guard.

The commander, and each one of the party, should try to impress on their memory the *route traversed*, so that they could find their way back, or guide another force.

For future guidance, make *marks at the cross-roads*.

Conceal themselves as much as possible, and if *obliged* to advance over an open space, do so quickly.

Halts should be made in a sequestered and hidden spot, and one or two sentries should be carefully placed, to command a view, and so guard against surprise. *A halt at night* should have a good retreat.

A Summary of Tactics.

80. State the principal measures and precautions to be adopted in reconnoitring a country.

A Summary of Tactics.

and be in a sheltered spot. It should never be made in a village or town, nor should the position be occupied till after dusk.

If the route passes near *a hill or eminence*, two of the men should ride to the top (if practicable), without attracting attention, and look over the brow. If they see anything, one rides back to report, while the other remains on the watch.

Reconnoiters should be careful in examining and passing through *a wood*. If it is a small one, one or two men should ride round the sides, while the others go cautiously into it. If *large*, one or two men should move a short distance into it at different points, and thus feel it before their comrades venture further.

If there is a *road passing through the wood*, both sides of it should be examined, and all paths and cross-roads must be followed for some distance, to make sure that no enemy is concealed. As the edge is approached, the party should be halted, to ascertain whether there is any enemy outside, or any reason to remain concealed, either for safety or observation.

Towns, villages, &c., should be carefully searched, to guard against an unexpected meeting with the enemy. Two men should ride in advance through the streets, and two men round the outskirts. Till they report all is clear, no entry should be made into the place.

Take advantage of *favourable ground to get as near the enemy's position as possible*.

A Summary of Tactics.

81. What points of observation ought to be observed in connection with the enemy's position ?

82. If a force of the enemy is observed on the march, what course should be adopted ?

83. If the enemy is met with, what should be done ?

A Summary of Tactics.

1. The strength and composition of the picquets.
 2. Whether posted on a plain, on a ridge, in covered ground, and if entrenched.
 3. If the approaches are open or barricaded.
 4. If the outposts appear vigilant.
 5. If there are any guns to enfilade special points.
 6. If the chain of sentries is complete, and all points watched.
 7. If the main body appears to be bivouacked close at hand or at a distance.
-

In order to ascertain approximately the strength of the enemy's column, the commander and two men should advance to some place where they can note the time each arm takes to file past a given point, the breadth and front it is moving on, and the probable rate of march.

If an *inferior* detachment of the enemy occupy a point that prevents the reconnoitring party from carrying out its purpose, the commander should not hesitate to attack it.

If a *superior* force is met, the party should fall back at once, throwing out flankers to guard against being cut off.

If the enemy continue to advance, the retreat should be continued gradually, watching for an

A Summary of Tactics.

83. If the enemy is met with, what should be done?

84. If a detached reconnoitring party is ordered to report on the country, what are the principal points to be noted?

A Summary of Tactics.

opportunity, if he pursues incautiously, to rapidly fall on him and secure prisoners. *Prisoners* often afford valuable information.

Roads—their breadth, nature of bottom, state of repair, &c. If there are any *lateral* roads, whether fit for arms, where they branch off, if they pass over heights, through defiles, across rivers, &c. Whether open ground for encamping, or elevated ground for positions, exist.

Villages—whether on a height, plain, valley, or on a river. The extent, outskirts, streets, size and construction of *all* the buildings, should be carefully noted. Surrounding country, whether open or close, and how far the whole is defensible.

Woods—their nature, extent, how far penetrable, if easily approached, and roads traversing them. Whether open in the interior—intersected by ravines, marshes, &c. If they contain houses, or are near roads or villages.

Rivers—breadth, depth, nature of bottom, nature of banks, currents, passages, and affluents.

Bridges—width, length, construction, and if strong enough for Cavalry and Artillery—if near a village or house.

Fords—direction, depth, nature of bottom, strength of current, approaches, and nature of banks.

A Summary of Tactics.

84. If a detached reconnoitring party is ordered to report on the country, what are the principal points to be noted?

85. What sorts of ground are there?

86. How is scouting conducted in an *open country*?

A Summary of Tactics.

Heights—whether good for defence—height above plain—whether plateau is broad or narrow—if crest line is regular—if plateau is level, wooded, or undulating—if slopes are gradual or abrupt, wooded or craggy—number of troops it would require.

Open, such as “the Chobham ridges,” or “the Long Valley,” Aldershot.

Close, such as any cultivated district in England.

Scouts are pushed out boldly to the front and flanks. These scouts are in pairs, so that when the enemy is seen, one returns to report, while the other continues to watch.

The main body follows at a suitable distance as a support. Its position is either central, or in rear of a flank if much exposed.

When the enemy is met with, an effort should be made to drive back the enemy's scouts, and ascertain what is going on behind them. This might be done by reinforcing the scouts; but the best way is to attack with your supports, and break through the enemy's line.

If the enemy's force is superior, the scouts should try to hold the ground, so as prevent him seeing their force and movements.

A Summary of India

Q. How is ~~agriculture~~ ~~industry~~ ~~in the country?~~

Q. How is ~~agriculture~~ ~~industry~~ ~~in a close country?~~



(un)

A Summary of Tactics.

If obliged to retire, they should do so slowly, and draw the enemy under the fire of the Infantry supporting them.

The scouts should be *careful not to come under the fire of the enemy's Infantry*, but should continue to observe the enemy.

An *immediate report* should be sent back when the enemy is met with, and of any changes in his force and movements. Each report should contain well-sifted information as to the enemy's strength, movements, &c. It should also state the hour of despatch.

In a cultivated district, the movements on both sides being confined to the roads, the commander of the party should have clear directions regarding the roads he is to reconnoitre, and those lateral, so that he can communicate with them by any existing side roads.

The scouts on each road should be formed of three or four privates and a non-commissioned officer.

The *main body* should be posted at a junction of different roads along which the scouts are acting, and advance as the patrols gain ground.

The *patrols* should move freely forward till they touch the enemy, as they run no risk of being cut off if the lateral roads are properly reconnoitred.

If the enemy's *Infantry is met with, or his Cavalry in superior force*, the scouts should retire ; but if

A Summary of Tactics.

87. How is scouting carried on in a *close country* ?

88. What is the aim and object of all scouting ?

A Summary of Tactics.

essential to hold the ground, a portion might be dismounted for this purpose.

If it is of consequence to find out the enemy's dispositions behind a special point, such as a bridge, &c., men *should be dismounted* to carry it with a rush.

Similarly, to hold a bridge or outlet of a road against a party of the enemy's Cavalry. *This was done* successfully by Krauchenburg in the action near Gallegos.

Reports are made either to the officer commanding the force or to the commanding officer of the regiment, whichever the party is detached from.

1. To seek for and obtain information of the enemy's whereabouts, force, and movements.

2. To rapidly send back that information to the person ordered to receive it.

3. To prevent the enemy from gaining information.

INFORMATION, to be of value, must be **EARLY, AMPLE, and ACCURATE.**

A Summary of Tactics.

CHAPTER IX.
Principles of the Employment of Infantry.

89. What was Frederick's system?

90. What was Napoleon's system?

A Summary of Tactics.

CHAPTER IX.

Principles of the Employment of Infantry.

His order of battle was in two lines—Infantry in three ranks. Both lines deployed—first with eight yards between battalions; second had fewer battalions, with greater intervals to make flanks coincide. Frederick never used skirmishers.

His men were well disciplined, and his system of tactics was to form his line obliquely, and to outflank his adversary.

He advanced in two lines of open columns in a direction perpendicular to his intended line of attack, and wheeled into lines when arrived at the required position.

The advantage of Frederick's system was that his force, by continually advancing, prevented the enemy from forming a fresh front, and the disorder re-acted on the remainder when endeavouring to support those engaged.

Napoleon converted Frederick's bar of iron into a flexible chain—*i.e.*, he broke up Frederick's line into small portions of greater solidity. These latter

A Summary of Tactics.

92. When did breechloading rifles come prominently into notice, and with what result?

93. In an Infantry attack, what are the general principles now common to all armies?

94. What are the duties of the skirmishers?

A Summary of Tactics.

became dissolved, and, with the skirmishers, gained the victory by their fire.

The inference drawn was, that fire action could no longer be confined to pave the way for an attack with the bayonet, but must become the main element in deciding a battle.

1. That the troops intended for the attack of a position should be formed up under cover. This cover can mostly be obtained within the Artillery range of that position.

2. That the troops advancing to attack should not commence to fire until they are at about 1000 yards—that being the longest range at which the fire of men moving rapidly is likely to be effective.

3. That the attacking force should be under one commander, and be divided into skirmishers ; supports to replenish the skirmishers' ranks, and finally to merge into it ; and reserves to keep at a suitable distance in the rear, until required to reinforce for the final rush.

The duties of the skirmishers, which in a battalion consist of two companies, are to keep up a steady, unceasing fire on the enemy, from the time its fire becomes effective up to the final rush. This fire *must* be maintained by reinforcements drawn from

A Summary of Tactics.

94. What are the duties of the skirmishers ?

95. What are the duties of the supports ?

96. What are the duties of the Main Body ?

A Summary of Tactics.

the supports as circumstances require. Speaking generally, the extent of front of the skirmishers of a battalion would be 400 yards, and the skirmishers 180 yards from the supports.

1. By reinforcing the skirmishers, to keep up a continuous fire.
2. To secure the skirmishers' flanks by being ready to concentrate and to oppose any attack that may threaten them.
3. To connect the firing line with the main body, and by being ready to support it, to give its men confidence.

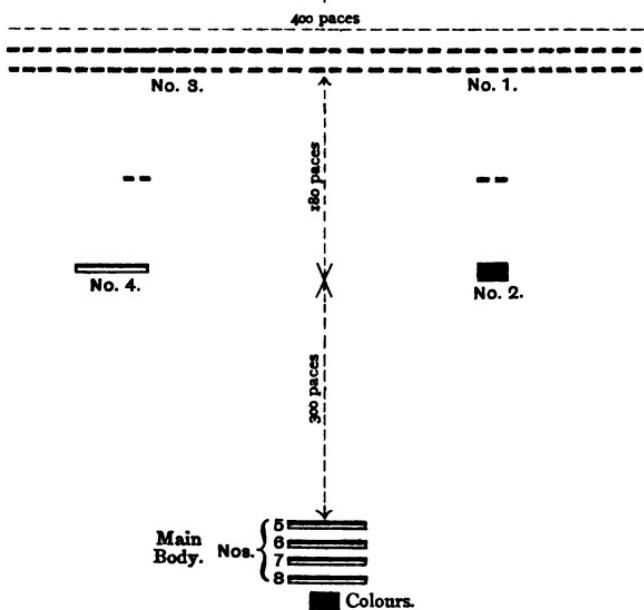
In a battalion the supports would consist of two companies, at 300 yards from the main body, with a connecting link (file) midway between them and the firing line. Their formation, when under Artillery fire, would be in extended order.

The duties of the Main Body are, in conjunction with the skirmishers and supports, to finally force the enemy's position. In a battalion it consists of four companies. Its formation when under Artillery fire, if a central battalion, should be in line, with files at one pace interval. If a flank battalion, it should be in *echelon* on the outer flank.

A BATTALION ATTACKING.

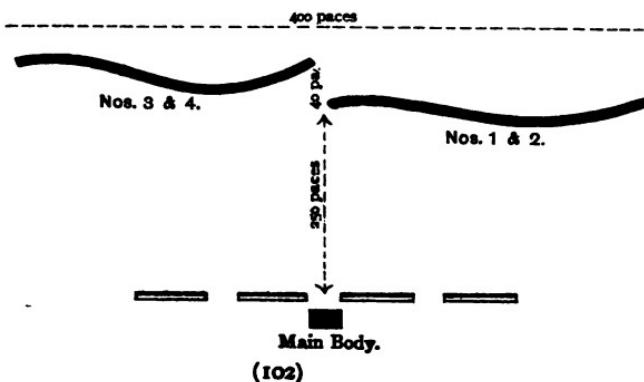
No. 1.

1ST STAGE about ↑ 2000 yards.



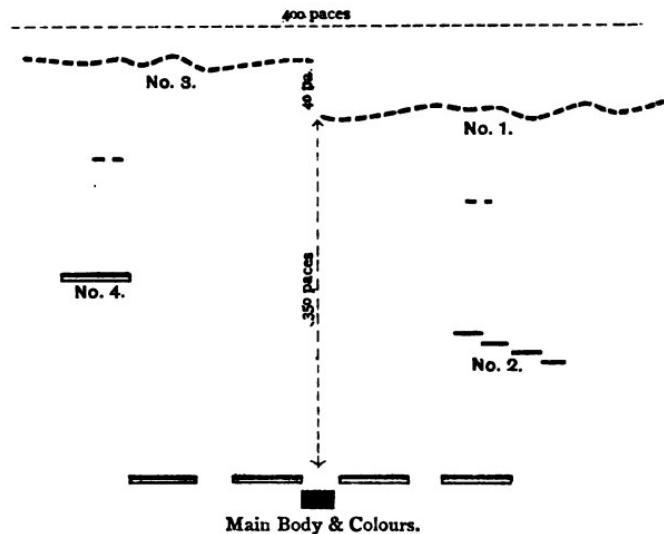
No. 3.

3RD STAGE about ↑ 300 yards.



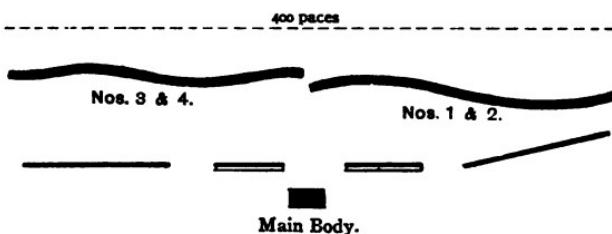
A BATTALION ATTACKING. No. 2.

2ND STAGE about ↑ 600 yards.



No. 4.

4TH STAGE about ↑ 150 yards.



Fighting line checked. Main body reinforcing according to circumstances, either in rank entire or in two ranks.

A Summary of Tactics.

97. How is the attack conducted?

98. If the skirmishers (fighting line) meet with a check, and have to assume the defensive, what has to be done?

A Summary of Tactics.

The battalion, having been formed for attack, as previously detailed, is ordered to advance by word of command (no bugle sounds being permitted), preceded, if necessary, by scouts. This advance usually commences at 2000 yards (*see Plate No. 1*). The skirmishers steadily move forward (firing after they arrive at about 1000 yards), either in general line or by alternate portions, until within about 600 yards of the enemy, at which distance its fire is really effective (*see Plate No. 2*). The advance should now be by rushes of about 40 yards, the troops taking advantage of cover, and lying down to fire. When the firing line is checked by the enemy's fire, the supports move up to reinforce it, and the reserve advances to replace the supports, at a distance of about 300 yards from the firing line (*see Plate No. 3*). From this point the advance is made by alternate combined companies, until within 150 yards of the enemy's position (*see Plate No. 4*). The final rush being determined on, the reserves move up to reinforce the firing line—the whole fix bayonets—the hottest possible fire is kept up for a few minutes—the bugles sound the charge, and the whole advance, cheering, in one general line at the double.

They should take possession of any available cover, and the supports should hurry up to assist them. They should maintain as heavy a fire as possible.

A Summary of Tactics.

DEFENCE.

99. How is the defence conducted ?

A Summary of Tactics.

DEFENCE.

A battalion is divided for defence in the same manner as for the attack, except that there are three companies in the front line instead of two, as in the attack.

Fighting line.—As soon as the attacking force comes within the effective range of musketry, the fighting line should contain as many men as can use their rifles freely.

Supports remain under cover, and close by, to supply the casualties in the fighting line.

Main body is placed in a central position until the point of the enemy's attack is developed. Then it may, in its entirety or in part, move to the support of the threatened portion of the position.

The distances between the lines must depend on the nature of the country.

Head cover is most essential, as was proved in the Russo-Turkish war. The Turks kept their men safe from the preparatory fire, and directly the attacking Infantry advanced to the attack, the defenders left their cover, and lined the parapet to meet them.

A Summary of Tactics.

C H A P T E R X.

Principles of the Employment of Cavalry.

100. What are the best formations of Cavalry for manoeuvring and for fighting?

101. How is the attack proceeded with?

A Summary of Tactics.

CHAPTER X.

Principles of the Employment of Cavalry.

Column is the most suitable for *manœuvring*. It affords a compact formation, admitting of freedom without danger of disorder. It enables obstacles to be more easily passed by, advantages of ground to be more readily utilised, and cover from view and fire to be oftener obtained.

For *fighting*, however, if columns were used, a great many sabres would be wasted, as only those in the front rank would be actually engaged. In order therefore to make every man available, the attack is conducted in line.

The advanced portion of a force for attack is drawn up in lines of two ranks, the second rank to fill the gaps in the first. It is preceded by scouts, and should have one or two flanking patrols, consisting of about two men and a non-commissioned officer, detached to some distance on the flanks, to watch the enemy's movements, and prevent surprise in that direction.

A Summary of Tactics.

101. How is the attack proceeded with ?

102. How are Supports and Reserves formed, and
for what purpose ?

A Summary of Tactics.

A charge, to be effective, should be sudden, rapid, and opportune. It is therefore absolutely necessary to have no formidable obstacles to retard its execution. To ensure this, the country over which the charge has to be made must be reconnoitred. This duty is often performed by the scouts. An instance of the neglect of reconnoitring occurred at Worth, when Michel's brigade, coming suddenly on obstacles, were retained under a galling Infantry fire, and suffered severely.

After a charge, the force composing it is liable to disorder, which is further increased by pursuit. Thus if there was no force to support it, and fresh Cavalry came down upon it, it would be utterly routed and pursued. Supports and Reserves are therefore formed either to support the front line, to take up the pursuit, or to check the enemy if the first line is repulsed.

Each of these bodies should be in line, or in such formation that line could be rapidly formed. To take advantage of cover is one of the main objects. This can sometimes be obtained in one formation better than in another. The ground, therefore, should regulate the formation, as also the distances between the lines. Usually 300 yards is sufficient, so that the rear line will not be affected by the disorder of the line in its front, but at the same time it will be near enough to afford timely support.

A Summary of Tactics.

103. What is the best position for the Supports and Reserves?

104. When the shock of a charge has broken the enemy's order, how should the success be followed up?

105. If the charge fails, how should the attacking force act?

106. When should Cavalry act against Infantry?

A Summary of Tactics.

The Supports should *never* be directly behind the attacking body. The flanks are the weak points. The Supports, therefore, can be advantageously posted in rear of the flanks of the first line. In such a position they will not be thrown into disorder, or have their action impeded by a repulse in front; they will protect the flanks, and will be well placed to act against those of the enemy.

The Reserves may be posted in a central position in rear of attacking body, and *echeloned* upon it, or wholly or partly in rear of an exposed flank.

The flank troops in the case of a regiment, or squadrons in a brigade, are ordered to pursue and follow up the advantage, opening out and covering the front and intervals, whilst the remainder keep together and support. It is all-important that, in pursuit, the men should not be allowed to get out of the hands of their officers.

The officers should prevent the men falling back directly on the supports, but should lead them clear of its flanks, and re-form behind it.

When it can surprise or take it suddenly in flank, or when Infantry is demoralised, or of inferior quality.

A Summary of Tactics.

107. Against Artillery, how should Cavalry act?

108. When should Cavalry be dismounted to fight on foot?

A Summary of Tactics.

As guns will always be supported by other troops, part of the attacking Cavalry should be directed against the covering party, and part against the guns. That against the guns should be in extended order, and that against the supports in a compact formation. The most suitable moment to obtain a decisive success against Artillery is when it is in movement, or when it has suffered heavily in men and horses.

In the case of a reconnoitring party of Cavalry, who are desirous of holding their ground, being opposed by a superior force of the enemy's Cavalry. Then they might be dismounted at a bridge, defile, or other suitable place with a limited front, and by their fire keep the enemy in check.

A Summary of Tactics.

C H A P T E R X I.

Principles of the Employment of Artillery.

109. What advantage has Artillery fire over that of Infantry? Describe the projectiles used in battle.

110. What regulates the range of Artillery?

A Summary of Tactics.

C H A P T E R X I.

Principles of the Employment of Artillery.

Its projectiles are larger, and have a greater range. Artillery can therefore act against Infantry at a distance at which the latter's fire would be ineffective.

The projectiles used are common shell, shrapnel, and case shot.

Shell is used against buildings or entrenchments; against Artillery, to damage guns and carriages; and against troops in masses, under cover, or to enfilade them in line.

Shrapnel is used against Artillery, to kill men and horses; and against troops in open order, or behind obstacles, through which shells can penetrate and burst.

Case shot is used against troops at short ranges.

It is not the absolute distance that regulates the range of Artillery, as a gun will carry much farther than it would be advisable to fire it. All depends on the accuracy with which it can be laid. The object fired at must be clearly seen. Experience proves

A Summary of Tactics.

110. What regulates the range of Artillery ?

111. What is the best position for Artillery in action ?

A Summary of Tactics.

that 2500 yards is about the *maximum*, and 900 yards the *minimum*, for common shell and shrapnel.

The reason for fixing the minimum at 900 yards, is because at that distance Infantry should destroy Artillery.

Case shot can only be relied on up to 350 yards. It can therefore seldom be used. There are, however, instances (such as at Fröschwiller, where a Prussian battery, single-handed, repulsed French Cavalry by case shot) where it is absolutely necessary to use case.

As a rule, case is only useful when a position must be held, or it is obligatory to arrest at any price the forward movement of the enemy.

A good Artillery position should be on elevated ground, with a clear open range to the front, and a good line of retreat. A ridge sufficiently high to see over all the ground in front, with a slope in rear to give cover to the limbers, and marshy ground or slope in front to catch the enemy's shells (provided it does not interfere with the forward movement), are advantageous. A gentle slope towards the assailants is the best, as it prevents plunging fire and facilitates *ricochet*. Stony ground should be avoided, as it exposes the men to splinters. Flanks, being the weak points, should rest on natural obstacles, or be secured by troops. If this is not possible, the flank batteries should be retired in *echelon*. An immediate

A Summary of T.

110. What regulates the range of

111. What is the best position for
action?



Summary of Tactics.

is a village or wood, makes gun similar one at a distance is aid for the gunners is most important confidence, and enables them to work idleness.

proved that the concentrated fire of a regular point is much more effective than a count of fire on different points. fire can be obtained either by concentrating or dispersing them, but concen-

tration has many advantages. The commander—words of command—correct ranges are easily circulated and noticed, and the effect is greater. In hand, there is a larger target. In case of retreat there is more

flanking, and enfilade. In active, and the first the

A Summary of Tactics.

111. What is the best position for Artillery in action?

112. What is the advantage of concentration of fire?

113. What sorts of Artillery fire are there?

A Summary of Tactics.

background, such as a village or wood, makes guns very visible, but a similar one at a distance is an advantage. Cover for the gunners is most important, as it gives them confidence, and enables them to work their guns with steadiness.

Experience has proved that the concentrated fire of Artillery on a particular point is much more effective than the same amount of fire on different points. Concentration of fire can be obtained either by massing the batteries or dispersing them, but concentrating their fire.

The former method has many advantages. The guns are all under one commander—words of command, orders, and correct ranges are easily circulated—casualties are little noticed, and the effect is greater. On the other hand, there is a larger target for the enemy, and in case of retreat there is more risk of disorder.

Direct, oblique, reverse, flanking, and enfilade. The last is the most effective, and the first the least so.

A Summary of Tactics.

CHAPTER XII.
The Three Arms Combined.

114. What rule should be observed in attacking a position with a force of the three arms?

115. How is an attack commenced?

A Summary of Tactics.

CHAPTER XII.

The Three Arms Combined.

1. Reconnoitre the position to be attacked as far as possible by means of the advanced Cavalry and staff officers.
 2. Attack as soon as possible. As a rule, an assailant has nothing to gain by delay, but a defender can strengthen his position.
 3. Have reserves ready to follow up a success or check a counter attack.
-

It is absolutely necessary to open an attack with Artillery. For this purpose every available gun should be brought into action from the outset. Until an impression has been made on the enemy's position, it would be impossible to expect Infantry to be successful. Care should, however, be taken not to advance the guns so far as to place them beyond the protection of their own Infantry. With the present improved fire-arms, Infantry in extended order, taking advantage of cover, could creep forward and inflict serious loss on the men and horses.

A Summary of Tactics.

115. How is an attack commenced ?

116. The guns of the attacking force having produced effect, how is the attack proceeded with ?

117. At this stage of the battle, what are the duties of the attacking Artillery ?

A Summary of Tactics.

Silencing or reducing the defender's Artillery, and shaking his Infantry, are the duties of the assailant's Artillery. The enemy's Artillery should be the first mark; and after an effect has been produced, the attacking guns should be turned against the Infantry of the defenders.

The Infantry, which up to this time has been (if possible) under cover, then advances, in the manner detailed in a previous chapter; and as it is this arm that will play the leading part, the other arms should arrange their movements in conformity with it.

Artillery, as a rule, cannot long remain in action in rear of its own advancing Infantry. Its co-operation is essential, hence the necessity for it to advance, and take up new positions as the fight progresses. In these advances the guns should not be brought under effective musketry fire, unless absolutely necessary. Such instances occurred at Spicheran, Borny, and Vionville, where guns were obliged to take up a position within range of Infantry fire. These cases were, however, exceptional. The guns had to assist the Infantry in holding the ground gained.

No fixed rule can be laid down when Artillery should expose itself to Infantry fire. Although co-operation between the two arms is essential, still this

A Summary of Tactics.

117. At this stage of the battle, what are the duties of the attacking Artillery?

118. As the fight progresses, and positions are taken by the attacking Infantry, what steps are taken by the Artillery?

119. Where is the Cavalry posted, and what are its duties?

A Summary of Tactics.

co-operation should not be obtained by undue exposure of the Artillery. If this co-operation cannot be secured by posting the guns out of the effective range of the enemy's Infantry, and closer support is urgently needed by hardly-pressed Infantry, then, and then alone, should the guns be advanced at all hazards.

Guns are at once brought forward to assist in securing possession. These guns are posted in the most effective positions, and should have a special escort of Cavalry or Infantry.

If the enemy has still guns in position, the attacking Artillery should direct part of its fire on them, and part on the hostile Infantry.

The Cavalry should be under cover, near enough to its own Infantry to be easily available. The selection of its position depends on the ground. The flanks being usually the weakest points, if suitable ground and cover can be secured, it would be advisable to post the Cavalry near them.

The Cavalry should be constantly on the alert to act as opportunities occur. It would be most effective against the enemy's Infantry when repulsed and in disorder. It could threaten the enemy's flanks, follow up successes, or check counter attacks.

A Summary of Tactics.

DEFENCE.

120. What kinds of defences are there?

121. How is the defence conducted ?

A Summary of Tactics.

DEFENCE.

Defence is of two kinds—Active and Passive.

Active defence implies a defensive attitude and tactics, until a chance arrives to assume the offensive by attacks or counter attacks.

Passive defence means repulsing attack without following up a success.

In taking up a position for defence, the first thing to consider is the strength of the force to hold it. Speaking generally, five men per yard of all arms, or three men per yard of Infantry.

The defence, in the first instance, relies on the destructiveness of the fire it can bring to bear on the attacking force. Experience has shown that the best way of effecting this is by massing the guns, placing the heaviest to defend the most important approaches, and on the most commanding ground. The exact ranges should be ascertained, and marked by posts or otherwise.

The Artillery fire should be concentrated on the different fractions of the attacking Artillery as each comes into action. This overwhelming fire should be kept up against the attacker's guns until his Infantry comes within range. Then the defender's guns should be turned on them. In the case of the Artillery of the attacking force being greatly superior in force to

A Summary of Tactics.

121. How is the defence conducted?

122. How is the Cavalry of the defence employed?



A Summary of Tactics.

that of the defenders, it would be unwise to risk the Artillery for the defence in so unequal a combat. It should be withdrawn from action, and reserved for the approach of the attacking Infantry.

Opportunities will occur during an action, such as batteries on the move, or exposing a flank. These should be taken advantage of by the defender's Artillery.

When the attacking Infantry advance, and their guns move forward to their support, they will probably come within the fire of the defender's Infantry. In that case, the defender's Artillery should devote its attention solely against the attacking Infantry, moving up fresh guns to take them in flank by a cross fire, and holding the ground until ordered to retire. Should the assailants succeed in approaching to short ranges, the guns should fire case, and support the Infantry to the last.

Previous to the attack, the Cavalry of the defence should be utilised as a screen in front of the position, and thus prevent the strength and movements of the defenders being ascertained.

After the action has commenced, it should be posted under cover, either to secure the flanks, or (with the reserve) to act as opportunities occur.

A Summary of Tactics

CHAPTER XIII.

Attack and Defence.

123. What should be the aim of a force acting on the defensive?

124. What are the requirements of a good defensive position ?



A Summary of Tactics.

C H A P T E R X I I I.

Attack and Defence.

To take up a favourable position, which would give it an advantage over its assailants.

To offer as determined a resistance as possible, and, if able, to keep a portion of its troops fresh, as opportunities occur, to make a counter attack,

1. The extent of position should be proportionate to the strength of the defenders.
2. Its depth should be such as would allow of free movement.
3. It should command all the ground in its front and flanks.
4. It should have an extensive range of fire to the front and flanks, unless the latter rest on impassable obstacles.
5. There should be suitable positions for the guns.
6. Cover for all arms, and communication between them.
7. Good line of retreat. The best is that which runs perpendicularly; the worst, that which lies in the prolongation of the line of front.

A Summary of Tactics.

125. How should troops be posted for defence?

A Summary of Tactics.

As a preliminary measure, the Cavalry should form a screen in front, to prevent the enemy reconnoitring the position. Some of the Artillery might also advantageously be posted in advance, to cover the Cavalry, and to oblige the enemy to declare his intentions at an early period. These guns should be protected by an escort on their exposed flank. When obliged to retire, they should do so by the flanks.

The Artillery for the defence should be so placed as to bring the enemy's columns under fire at long ranges. The flanks should be especially secured, and if guns can be posted (without being exposed to enfilade) so as to bring a cross fire on the ground in front, it would materially add to the strength of the position. In an irregular contour, the salients afford good positions for Artillery. A parapet of earth, or some sort of rough entrenchment, should be prepared to give protection to the men and guns.

The Infantry is usually distributed in three lines—fighting line, supports, and reserve.

The troops need not necessarily be formed in one continued line. In every position there are points whose natural strength is greater than that of others. The weak points should be strongly guarded, while the others may be almost entirely neglected. An enemy would not venture on an attack which laid open his flanks. The fighting line should, as a rule, be disposed so as to offer a stout resistance with as few men as possible. Thus a comparatively large

A Summary of Tactics.

125. How should troops be posted for defence?

126. Mention the advantages possessed by the defenders over the attacking force.

ATTACK.

127. Mention the different modes of attack.

A Summary of Tactics.

proportion of the defender's force could be kept under cover, to act against the assailant's real point of attack. These troops are the supports and reserves.

On them would also devolve the duties of guarding against flank attack, and making counter attacks as opportunities occur. Their position should be under cover, and be such as would enable them quickly to reinforce any portion of the fighting line, to secure the flanks, and deliver a counter attack.

1. They can select their own position for defence.
 2. They can organise from the beginning the defence best suited to the force.
 3. They can supplement numbers by entrenchments.
 4. Their troops being under cover are less exposed, and have therefore more confidence.
-

ATTACK.

1. Frontal attack, similar to that made by the allies at the Alma, in the Crimea, in 1854.
2. Combined attack on front and flank, such as was made by the Prussians at Colombey Heights, in August, 1870.
3. Combined attack on front and both flanks. This was exemplified at Buxkersdorf, by the Prussians against the Austrians, in 1866.
4. Concentrated attack on a weak point.

A Summary of Tactics.

128. What are the principal points of importance to be considered in making an attack?

129. What considerations should influence the commander of the attacking force in selecting his point of attack?

A Summary of Tactics.

1. Select for attack the weakest points of the enemy's position, or those whose possession promises the most decisive results.
 2. Having chosen your points of attack, concentrate your forces on these, and carry out your views energetically.
 3. Make feints at several other points.
 4. Concentrate your Artillery fire on the points you propose to attack.
 5. Have your reserves posted under cover, so as to be available when required.
 6. Place your Cavalry under cover, to follow up successes, or to act as may be necessary.
 7. Give no indication of the real points of attack till the last moment.
-

The defenders having chosen their position for defence, there would be no general advantages to the attackers. Every position has, however, some points weaker than others. These should be recognised, and selected for attack, unless a point offers itself, which, although stronger, still, if taken, would enable the attacking force to divide the enemy into two parts. This mode of attack, if the most difficult to execute, is undoubtedly, in case of success, the most decisive, the enemy being broken into fractions, which can subsequently be beaten in detail. The enemy's line of retreat may also thus be arrived at, and his

A Summary of Tactics.

129. What considerations should influence the commander of the attacking force in selecting his point of attack?

130. The point of attack having been decided on, what measures should be adopted?

A Summary of Tactics.

communications cut before he can recover himself. The attack must, however, always be made with force sufficient to resist a counter enveloping attack on the part of the enemy, which might otherwise be disastrous in its results. The increased range of modern guns and rifles has made this attack more hazardous than ever, for a concentrated fire action can now be brought to bear on the assailant, not only from all parts of the defence in his immediate front, but, in most cases, from either flank as well. Unless, therefore, the ground covers the movement in a great degree, it should not be attempted.

The troops should be disposed so as to attack the whole of the defender's line. Those for the real point of attack should, of course, be of greater numerical strength than those for the false attacks. This must be concealed from the enemy, or he would concentrate his troops to defend the threatened part of his line. It is most essential to deceive him. The commander of the attacking force should so place his men as to lead the defenders to believe they are stronger at all points than they really are.

Sometimes a portion of the assailant's force is detached to make a turning movement, and threaten the defender's line of retreat; but, in this case, care should be taken that the enemy could not act offensively in turn against each portion of the divided force.

A Summary of Tactics.

130. The point of attack having been decided on, what measures should be adopted ?

131. State the advantages the attacking force has over that of the defence.

A Summary of Tactics.

The Artillery and Cavalry of the attacking force, by their rapid advance (if the ground permits), are specially suited to a *turning* movement. The manner in which an attack is conducted has been so freely discussed in previous chapters, that it is unnecessary again to enter into it; suffice it to say, that Artillery must first shake the defender's position, and then leave the Infantry to perform the rest.

1. Every line has weak points, which only require to be recognised.
2. The assailant can choose his own point of attack.
3. The defender must conform his movements to those of his opponent.
4. The assailant can keep his opponent in ignorance of his plans until the moment for action arrives.

A Summary of Tactics.

CHAPTER XIV.

Rearguards.

132. What kinds of Rearguards are there?

133. What are the duties of Rearguards?

134. How ought a Rearguard to act?

A Summary of Tactics.

CHAPTER XIV.

Rearguards.

There are two kinds—

1. The Rearguard of a force advancing against an enemy.
 2. The Rearguard of a force retreating before an enemy.
-

The duties of the Rearguard *of a force advancing* against an enemy are to collect the stragglers, guard the rear of the column, protect the baggage from marauders and disaffected natives, and act as police to the rest of the column.

The Rearguard *to a retreating force* has much more serious duties. They consist in constantly checking and annoying the enemy. The one great object is to enable the retreating force to retire in good order, and unmolested from attack by the enemy.

The Rearguard ought to take up positions of natural strength along the line of retreat, making as

A Summary of Tactics.

134. How ought a Rearguard to act ?

135. What regulates the strength and composition
of a Rearguard ?

A Summary of Tactics.

great a show as possible, in order to lead the enemy to believe it is much stronger than it really is. The force usually opposed to it is the enemy's Advanced Guard. This is obliged to halt, and deploy for attack. Thus time is gained by the retreating army, enabling it (if in disorder, as it might be after a defeat) to re-form, or, under other circumstances, to carry out its object in safety. The object of a Rearguard being to delay the enemy, and not to fight, unless under exceptional circumstances, it should be quickly moved off to some position farther back when the dispositions for attack of the advancing force are thoroughly developed, or its flanks are threatened.

The Rearguard should be informed of the most suitable positions for defence on its line of march, also if any defiles or obstacles exist.

The strength and composition of a Rearguard depends on the force and vicinity of the enemy, the nature of the country, and the resistance to be offered. As a rule, however, it should be composed of all three arms, so as to be tactically independent as a fighting body.

It should always be provided with axes and entrenching tools, to enable it to block up defiles, &c., to break up a road, and throw impediments in the way of a pursuing enemy.

A Summary of Tactics.

136. What is the formation of a Rearguard?

137. How does a Rearguard effect its retreat from a position rendered untenable?

138. What are the dangers to be guarded against by a Rearguard?

A Summary of Tactics.

The formation of a Rearguard is the same as an Advanced Guard turned to the rear. The flanking parties should always be on the alert to notice any attempts to turn its flanks—such, for instance, as a ford when a bridge is defended.

Skirmishers are extended along its whole line of front, and under cover of these all the rest of the force retire. A portion of the troops thus retired should hold a position in rear, if necessary, to secure the safe retreat of the rest of the force. Some guns should remain in action, as their withdrawal would betray the movement, and induce the enemy to press forward to the attack.

Each portion, by successively taking up fresh positions, and obliging the enemy constantly to prepare for attack, attains the desired result. It should always maintain its touch with the enemy, otherwise the latter, by moving on lateral roads, might forestall it at some point farther back, as was done by the Russian Advanced Guard in the French retreat from Moscow. The Russians, moving by cross-roads, outstripped their opponents, and thrust themselves between the French and their main body near Wiasma.

It must be careful not to be cut off, but, at the same time, it must not run the risk of being hustled back on the main body. It should hold a position at any cost, if necessary, to ensure the safe retreat of the force it is protecting.

A Summary of Tactics.

CHAPTER XV.

Defiles.

139. What is a defile?

140. What is the importance of a defile in a military sense?

141. What is the disadvantage of a defile to the defenders.

A Summary of Tactics.

CHAPTER XV.

Defiles.

Any portion of ground that, owing to local impediments, can only be traversed by troops on a narrow front in proportion to their numbers. This depends in a great measure on the strength of the force. A mountain pass might not be classed as a defile to a small body of troops, whereas it would be to a large force.

Only a limited number can be engaged, according to the extent of front. Thus an inferior force may successfully hold a defile against a vastly superior one.

Every defile can be turned if the enemy diverge sufficiently. The main points are, whether they can spare the time to do so, and whether, in effecting the required circuit, they lay themselves open to be attacked at a disadvantage. In any case, the turning-point should be closely watched, and, if a defile, bridge, &c., it may be defended.

A Summary of Tactics.

146. What considerations should influence a commander in defending a defile in front?

A Summary of Tactics.

This is the worst position in which a defile could be defended, as, beyond affording support to the flanks, the defile is a source of weakness rather than strength. A defeat in such a position would result in serious loss and disorder, and this knowledge alone would have a bad moral effect on the defending troops.

Circumstances, however, compel such positions to be adopted, as in the case of the main body retreating through a defile, and not having safely got through it ; or when it is of importance to prevent the enemy using the defile, and the ground in rear is not favourable for defence.

In withdrawing the force holding the entrance to a defile, great caution must be adopted. If the enemy press hard on any particular point, the defence of this can be maintained, while the other parts of the line are denuded ; but if the attack is along the whole front, and the ground offers no special defensive advantages, the retreat should commence from the flanks, gradually contracting the front.

Great skill is necessary in conducting a movement of this description. Sufficient resistance must be offered to enable the main body to get through safely, and yet it must not be prolonged too much. The attacking force gradually becomes stronger, and the defenders might be overpowered, and driven back in disorder. The delicate point is to know *when* to retire.

A Summary of Tactics.

147. State some instances of defiles defended in front.

148. When should a defile be defended in the interior?

A Summary of Tactics.

Konigenhof, in 1866, where the Austrians covered the passage of an army corps over the Elbe.

Neumarkt, in 1809, where Molitor's division covered the retreat of the Bavarians after an engagement.

As a rule, a defile would not be required to be defended in the interior from the outset. Sometimes positions of great strength present themselves inside a defile, or others that, by means of barricades or obstacles, can be converted into a very strong defensive position. In these cases it might be advisable to neglect the defence of the entrance, and depend solely on the resistance you could offer at these points. Care must, however, be taken that the flanks of these positions are secured, and that every precaution is adopted to prevent the defile being turned. If the flanks are inaccessible, or naturally strong, the defence of a position of this description would offer great advantages. The defenders, having erected abattis, barricades, or other obstructions, would fight under a certain amount of cover. This would have great moral effect on the troops; while, the front being restricted, the attacking force would derive little advantage, if any, from their numerical superiority.

A force having undertaken a defence of this description would have to carry it out obstinately, as, if defeated and forced to retire precipitately, the result would be disastrous in the extreme.

A Summary of Tactics.

149. Give instances where defiles were successfully defended in the interior.

150. When should a defile be defended in rear?

151. Are there not instances when the defenders cannot choose the position to be held in a defile?

(158).

A Summary of Tactics.

The defence of the defile of Podkost by the Austrians in 1866, to cover the retreat of the 1st corps from the Iser.

An obstinate resistance to the advance of the French in the Maien Valley, in 1799, was made by a greatly inferior force.

The defence of a position in rear of a defile is far the strongest, and, if properly carried out, would render it almost impossible to force it. It has the advantage of bringing the fire of a large front to bear on a small one. This concentrated fire on the head of a column issuing from the defile ought to be so effective as to crush it completely. It has been advocated to allow a portion of the attacking force to advance through the defile, so as the more effectually to annihilate it, but this course is far too dangerous. It is easier to check a force when issuing from a defile than at any other time. It would therefore always be wiser to attack the enemy when issuing, than to chance a greater success by waiting to attack his advanced troops in front and on both flanks after they had got through the defile.

When a retreat has to be made through a defile, the position for defence cannot be selected. It is necessary to defend it in front with a part of the

A Summary of Tactics.

151. Are there not instances when the defenders cannot choose the position to be held in a defile?

152. How are *mountain* defiles defended?

A Summary of Tactics.

force while the rest get safely through. The defending force in this case should consist of Artillery and Infantry, and should be withdrawn by degrees. Infantry should hold all approaches to the entrances, and be disposed either in a continued line or to defend special points, according to the nature of the ground. Behind this barrier the rest of the troops move successively through the defile, detaching troops to hold any lateral roads, and taking up a strong position to defend the outlet directly its leading troops arrive there.

On the nature of the adjoining heights and ground depends the position taken up for defence. If the heights are difficult to climb and the ground is favourable, the defence ought to be conducted at the entrance. In that case, Infantry should occupy the heights, thus securing the flanks, and the mouth of the pass should be strongly barricaded. Even should the enemy be able to force the pass, they can do nothing as long as Infantry hold the heights. These therefore should be stoutly defended. If the enclosing heights do not command the pass, then the defences should be made in the pass itself, for, if forced, the heights would be turned. If the valley widens, this would be an advantageous position for defence.

If it is decided to make the stand at the outlet, the heaviest fire, both of Artillery and Infantry, should be

A Summary of Tactics.

152. How are *mountain* defiles defended?

153. How is the attack on mountain defiles conducted?

A Summary of Tactics.

concentrated on the *débouche*, to crush the head of the enemy's column on issuing. The defensive force must be kept well in hand. Its distance from the outlet must depend entirely on the ground. The larger the front, the greater amount of concentrated fire on the gorge ; but a lengthened line is not so well in hand to act offensively. Too much dissemination should therefore be carefully guarded against.

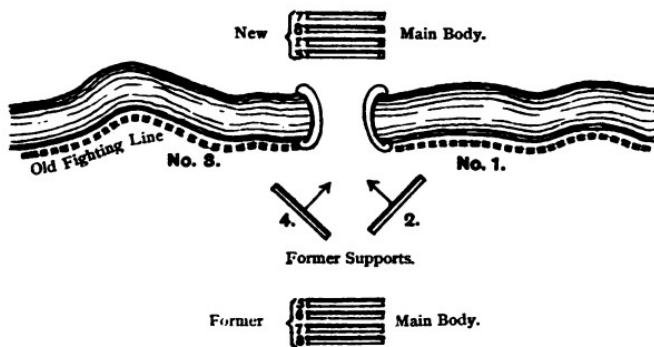
Taking the heights on each side with Infantry, and destroying the barricades across the pass with Artillery, are the *primary* points in the attack of a mountain defile. As long as the heights are held, no advance can be made through the defile. The attacking force is therefore divided into two parts—one, with Artillery, to act against the pass, conjointly with the other portion against the heights.

While the party is clearing the heights, the guns should be opened against the obstacles, &c., in the pass. Directly an effect has been produced, the Infantry advance to carry the gorge at a rush. In moving on through the defile, the force should be preceded by an advanced guard of Infantry, with flanking parties on the heights. A few guns should also accompany the leading troops, to help in taking up a position on issuing from the mountain defile. Should they at this time meet with the enemy, other Infantry and guns should rapidly advance to their support.

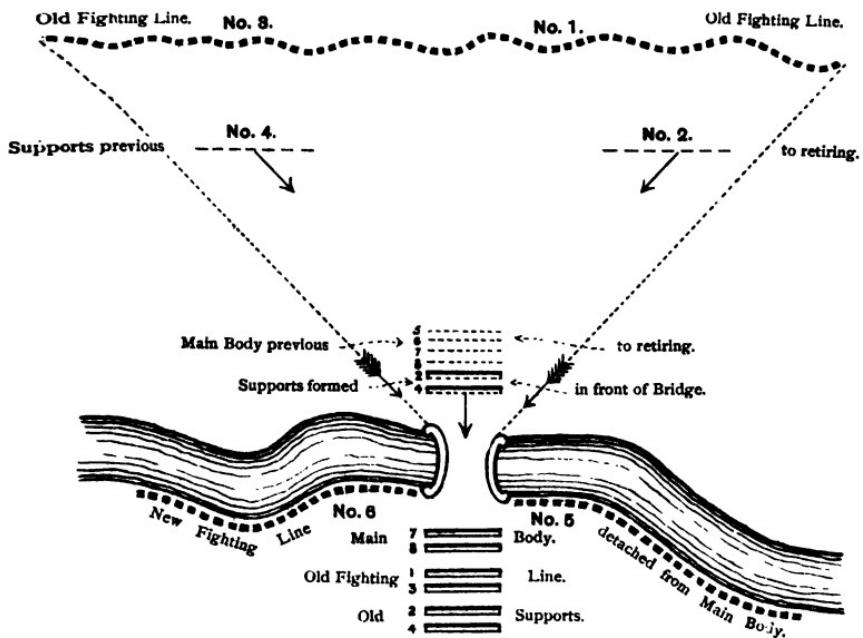
**A BATTALION IN EXTENDED ORDER ADVANCING ACROSS
A BRIDGE IN CONTACT WITH AN ENEMY.**



New Supports **No. 6** **No. 5** from Main Body.



A BATTALION IN EXTENDED ORDER RETIRING ACROSS
A BRIDGE IN CONTACT WITH AN ENEMY.



A Summary of Tactics.

154. How are bridges defended?

155. How should a bridge be attacked?

A Summary of Tactics.

If the defenders can select their position for defence, they would choose the side farthest from the enemy. A position of this description in rear of a bridge has the same advantages as those in the defence of the outlet from the defile, and which have already been detailed. A great deal, however, will depend on the nature of the surrounding country. If the bridge connects portions of a village, the houses and fences on the side nearest the enemy should be occupied, not only as a defence, but to prevent the attacking force from obtaining cover from them. When the defending force is not strong enough to be distributed on the near side, all cover that can be secured by the attackers should be levelled. Again, if the bridge is in the rear of a village, the defence must be organised on the enemy's side. The main consideration in the defence of the bridge itself is to concentrate as much fire as possible (both of Artillery and Infantry) upon it and the ground in its front. This can be better effected when the river bends towards the enemy on both sides of the bridge.

In attacking a bridge, the Artillery fire should be concentrated on the defenders' position, and the Infantry advance (as much as possible) *under cover* in extended order. If any detached houses are occupied for the defence, they can either be attacked or passed by, leaving a detachment to hold the

A Summary of Tactics.

155. How should a bridge be attacked?

156. How is a retreat over a bridge conducted?

A Summary of Tactics.

defenders in check. If, however, many buildings are defended on the near side, they must be taken before any attack can be made on the bridge. In a fairly open country, the fighting line, on reaching the river, will lie down (taking advantage of any cover), and keep up a rapid fire on the enemy. The supports, on nearing the bridge, close on the supports opposite to it, and, assisted by the main body, charge and force the passage with the bayonet. This gained, and the main body having crossed the bridge, the supports extend from the centre, leaving the main body to hold the outlet of the bridge until the fire of the old fighting line is clouded by the new skirmishers. Then the new supports will be furnished by the main body, and the old fighting line form up in rear of the main body.

In retiring over a bridge, the main body first crosses, and takes up a position on the other side, throwing out a fighting line on both sides along the river bank. Then supports close on each other, and hold the opening of the bridge until the fighting line have safely crossed. This they (the fighting line) do by gradually inclining towards the bridge, and, when near it, running quickly over, forming up in rear of the main body. The supports then cross, and take up a position in rear. The new fighting line opens fire as soon as its front is clear.

A Summary of Tactics.

157. How is a ford defended?

158. How should a ford be attacked?

159. How is the position of a ford ascertained?

A Summary of Tactics.

A ford should always be defended on the side farthest from the enemy. If defended in front, and the defenders were forced back, the position of the ford would be discovered. Concentration of fire on the point of passage is the main point to be observed. If the defenders are likely subsequently to use the ford, it must not be injured. If not likely to be used, by placing harrows, stakes, trees, or other obstacles, the ford could be made impassable.

In attacking a ford (as in all other attacks) Artillery fire must first produce effect, as the troops are longer than usual under fire, having to search for the ford, and, when found, crossing slowly on a small front. Guns and Cavalry, supported by Infantry, should cross first, and effect a lodgment as quickly as possible.

The *passable* depth of a ford should not exceed—

For Infantry, 3 feet.

For Cavalry, 4 feet.

For Artillery, 2 feet 4 inches, with limber boxes ;
or 3 feet 4 inches without limber boxes.

By following wheel tracks.

By enquiry from inhabitants.

If houses on both sides of the river, ascertain how communication is maintained.

Sound the depths in a boat.

Examine bends of the stream where the current is swift and broken.

A Summary of Tactics.

160. How is the attack, and also the defence, of a causeway carried out?

161. Give examples of mountain defiles unsuccessfully defended in front.

162. Give an instance where an attempt to defend a bridge in front failed.

A Summary of Tactics.

What has been stated in this chapter regarding bridges applies equally to causeways, with the addition that, in the latter, the defile being of greater length, troops crossing it are longer under fire. If the defence was organised on the near side, a defeat would be most disastrous, and, from the limited extent of ground, no stand could be made on the causeway itself. It therefore follows that in all cases the defence should be arranged on the far side. This has the advantage of having the enemy longer under fire, particularly if the causeway be of any length.

The Khyber Pass was forced by the British in 1842.

The position of the Austrians at Taufers was forced by the French in 1799.

Both these successes were obtained by attacks on the flanks.

In July, 1810, Crauford endeavoured to defend (in front) the bridge over the Coa, near Almeida, but was obliged to retire before the French after an obstinate engagement.

A Summary of Tactics.

C H A P T E R XVI.

Rivers.

163. How is the defence of a river conducted?

C H A P T E R X V I.

Rivers.

The most important point is to prevent the assailants effecting a lodgment on the defender's side of the river, for under cover of this party the remainder could cross easily, and with security. The first force that crosses is small, and the easier crushed; but should the assailants effect a landing, and push over reinforcements, it is essential the defenders should have troops ready to oppose them.

Thus the general principle of defence is to watch the length of river with advanced posts, guarding in force vulnerable points (such as fords, &c.), and concentrating the main body in one or two central positions. If the river is broad, it adds to the difficulty of throwing a bridge across it, or of crossing it by boats. On the other hand, if narrow, and with a good defensive position on the defender's side, it will often be advisable to offer a feeble defence to the crossing, and devote all the defender's energy to making a determined resistance at the strong tactical position on the assailant's line of route.

A Summary of Tactics.

164. What preliminary measures should be adopted before attempting to cross a defended river ?

165. The preliminaries being arranged, how ought the attempted crossing to be proceeded with ?

A Summary of Tactics.

the Douro in 1809, is also most essential; and if there are tributary streams or islands near at hand, they would be useful.

The point of crossing being chosen, the next measure is to collect *under cover* everything necessary for doing so. Boats should be searched for, sound materials for bridges collected, troops and guns massed behind some height near at hand, and parties detached to make feints on other spots. Choose the position for the batteries to cover the movement, but do not post the guns till the last moment.

All being in readiness, and everything being accurately timed, open fire on the opposite bank, to clear it of troops and silence the defender's Artillery. Push over with the greatest celerity as strong a covering party as possible, who, after effecting a lodgment, should lose no time in strengthening their position against counter attack. On this all depends, therefore they should take advantage of any natural shelter, and obstinately contest the ground till reinforced. In the meanwhile, the assailants, by boats or other means (swimming has been resorted to, and arms, &c., conveyed on a small raft), push over reinforcements while the bridges are being constructed.

Sometimes the parties detached to make feints at
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A Summary of Tactics.

165. The preliminaries being arranged, how ought the attempted crossing to be proceeded with?

A Summary of Tactics.

other points of the river find they can cross unopposed, and, by turning the defender's flank, materially assist the assailants. In that case, if strong enough to act independently, they might risk it; but care must be taken that they are not overpowered and annihilated before they could recross the river or effect a junction on the defender's side.



A Summary of Tactics.

165. The preliminaries being arranged, how ought the attempted crossing to be proceeded with?



A Summary of Tactics

other points of the river find they can not cross it, and, by turning the defender's side, expose the assailants. In that case, if the defenders act independently, they might risk a defeat, but it is taken that they are not overbold, and will retreat before they could recross the river, and return on the defender's side.

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A Summary of Tactics.

CHAPTER XVII.

Woods.

166. Before putting a wood in a state of defence, what points should be noted?

167. How is a wood put in a state of defence?

A Summary of Tactics.

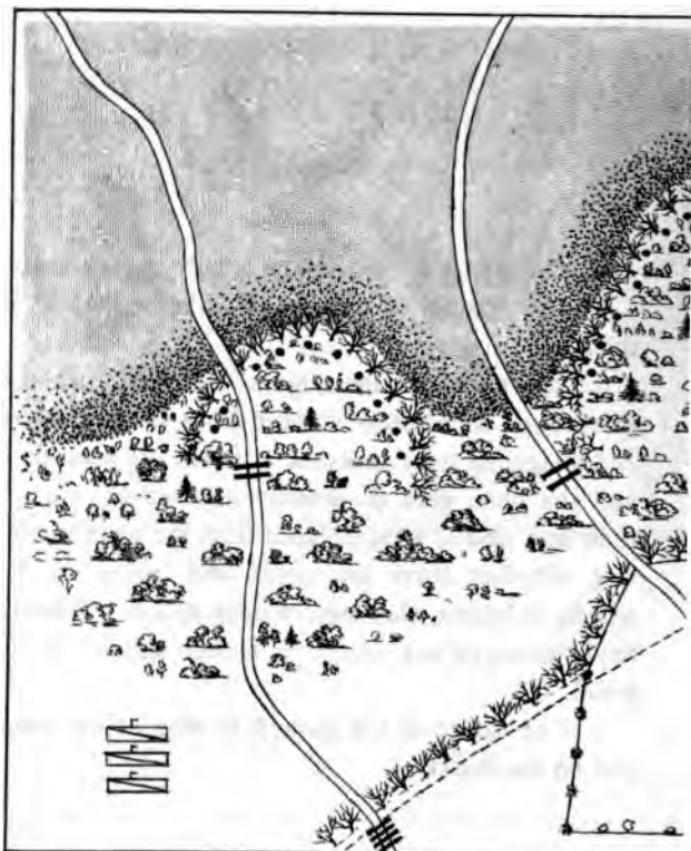
C H A P T E R X V I I .

Woods.

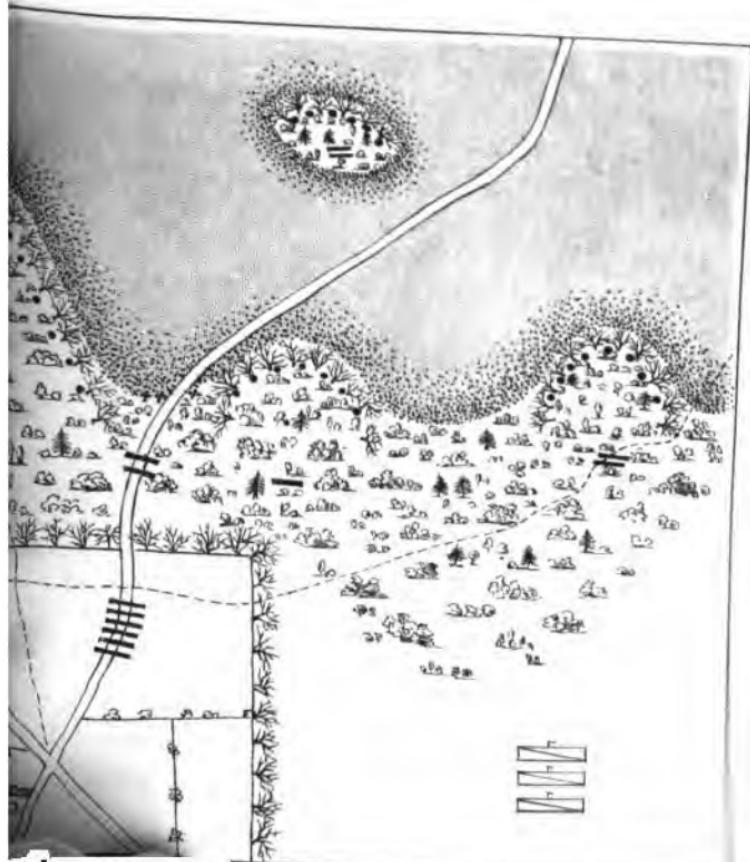
1. The size of the wood—its length and breadth.
2. The nature of the wood—whether open or thick.
3. The nature of the edge of the wood—whether marked or indefinite—whether belts of underwood and straggling trees intervene between the main body and the open ground—whether any outlying clumps, their size, and at what distance from the main wood.
4. Whether there are roads and paths in the woods, or houses, clearings, or open spaces. Whether any streams, or wet places, or broken ground in the wood.
5. The nature of the ground in rear of the wood and on the flanks.

The salients are the weak points, and should be first attended to. These should be strengthened by abattis, or other obstacles. Everything outside the wood that would afford cover to the attacking force,

DEFENC



A WOOD.



A Summary of Tactics.

167. How is a wood put in a state of defence?

168. How should the troops be disposed for the defence?

A Summary of Tactics.

such as hedges, walls, trees, &c., should be levelled, if possible, to a distance of 600 yards. If any banks exist on the border, they should be improved, or others roughly raised, or abattis to strengthen the position. Celerity is essential; erect, therefore, those obstacles which can be raised the quickest. If time admits, a continued defensive line should be constructed around the front of the wood, with the flanks turned back. Inner lines of defence would also be beneficial, as also a position in rear of the wood to fall back on.

If, however, time is limited, the weakest points alone must be looked to, and the obstacles in front of these should have a return behind it prolonged into the wood. Block up all roads some few hundred yards in front of the wood, and form small posts there to cover the barricades. This is better than breaking them up at the entrance. Raise cover for the guns on the flanks in the re-entrant angles, and on each side of the roads leading from the enemy. They are better placed close to, but not on, the roads. They are not so much exposed, and cannot be so easily seen.

The troops should be divided into three parts—fighting line, supports, and reserve.

The border of the wood is the *heart* of the defence. Everything, therefore, should be regulated to hold this as long as possible. A comparatively large proportion

A Summary of Tactics.

168. How should the troops be disposed for the defence?

A Summary of Tactics.

of the force should be employed in its defence, more especially at the salients. Thus a constant and steady fire would be maintained, and all gaps in the fighting line should be at once filled by the supports.

The supports might be divided into small bodies, about 100 yards in rear, to be ready to act at any point the enemy might obtain a footing, or to reinforce the skirmishers.

The reserve, in one or more portions, should be posted at convenient spots, either to charge the enemy, if they succeed in penetrating the wood, or, if the wood is merely an advanced post, to cover the retreat in case of repulse.

The Artillery should be posted at suitable points on the flanks, and at the re-entrant angles, to sweep the ground in front of the salients. These latter points, being the weakest of the position, require the most fire. Guns should also be placed to enfilade the roads leading from the enemy. All guns should have cover, even if it consists only of furze, branches of trees, &c. Care should be taken to secure them a good and safe retreat.

Cavalry is posted, as a rule, in rear of the flanks, to act against a flank movement, or to take advantage of any opportunity that may occur. Such a chance might arrive if the attacking force succeeded in driving the defenders from the wood. Cavalry, taking assailants in flank, might then convert a success into a defeat.

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168. How should the troops be disposed for the defence?

169. How is the attack of a wood proceeded with?

A Summary of Tactics.

Sometimes open spaces exist in a wood. Then Cavalry might be placed there, but it is an unusual proceeding.

The great difficulty is to know how the wood is held—where the guns and Infantry are, and which are the weak points.

The reconnaissance of a wood, prior to attack, should embrace not only the ground in front and on the flanks, but information as to the inside of the wood should be sought for from country people and maps.

The position of the defenders is best found out by false attacks.

It is better to make two or three distinct, though simultaneous attacks.

The reason for this is, that from the trees, under-wood, &c., communication is not so easily held with the supports and reserves in a wood as outside. Troops in the fighting line, by the non-arrival of the supports, would soon realise this fact, and be disconcerted thereby.

There *must* be some parts of the defender's line more vulnerable than others. Select these points, therefore, for the main attack.

Concentrate on them all the Artillery fire, and advance the Infantry in three lines—fighting line, supports, and reserve.

A Summary of Tactics.

169. How is the attack of a wood proceeded with?

A Summary of Tactics.

The *fighting line* should be in extended order along the whole front.

The greatest number of troops should be opposite the real points of attack, while those on which feints are made should be proportionately weakened. Conceal these dispositions from the enemy as much as possible.

The *supports* should follow closely on the fighting line, so as to assist in effecting an entry into the wood. This is the all-important aim of the attacking force, for when once inside the wood, they are on equal terms (or nearly so) with the defenders. The only advantage the defenders would then have would be their inner line of defence, if any. When the assailants have penetrated at any point, and strongly effected a lodgment, the rest of the defender's first line would most likely retire sooner than risk being cut off.

Unless there is a probability of the interior line being taken with a rush, it would be better to re-form, and allow the reserves to come up, before advancing farther into the wood.

Having secured possession of the wood, guns should be moved forward to support the troops when issuing on the enemy's side. Cavalry also might advance round the flanks, to distract the attention of the enemy's Cavalry, otherwise the latter might be employed against the assailant's flanks with serious results.

A Summary of Tactics.

CHAPTER XVIII.

Villages.

170. What points should be considered prior to putting a village in a state of defence?

A Summary of Tactics.

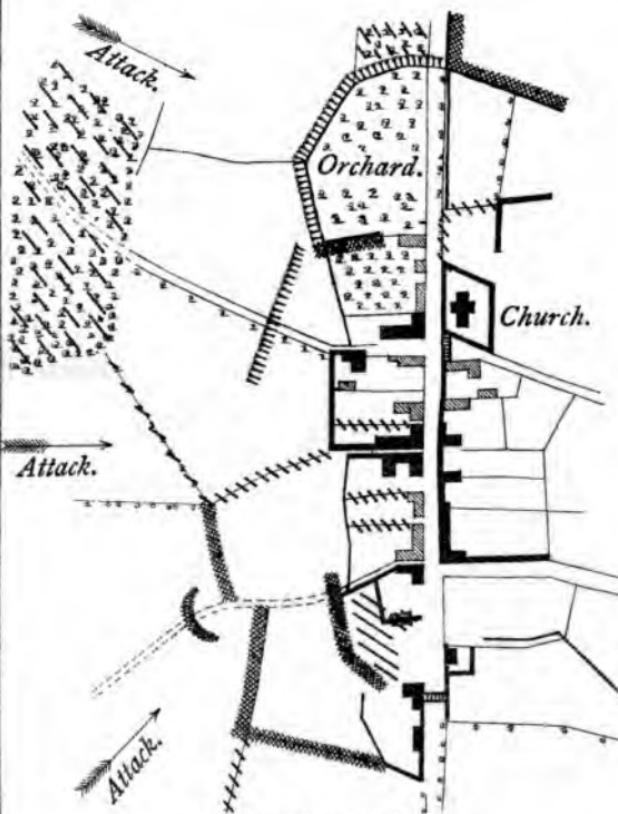
CHAPTER XVIII.

Villages.

1. The nature of the ground round the village, the amount of cover offered to an attack, the nature of the fences, and whether suitable for defensive purposes or not.
2. The line selected to form the outer *enceinte* should be carefully examined, and such walls, hedges, or fences as may be available for forming a portion of the line should be selected, and the places where shelter-trenches or earthworks are required should be marked.
3. The houses forming the inner *enceinte* should be selected, those with timber outbuildings being avoided if the woodwork cannot be pulled down. The roads leading through the village should be examined, the places for barricades chosen, and fresh openings and passages made where requisite.
4. Whether the village is held as a detached post, or as an advanced post of a line of battle.

DEFENCE OF VILLAGES.

BROADSIDE VILLAGE.

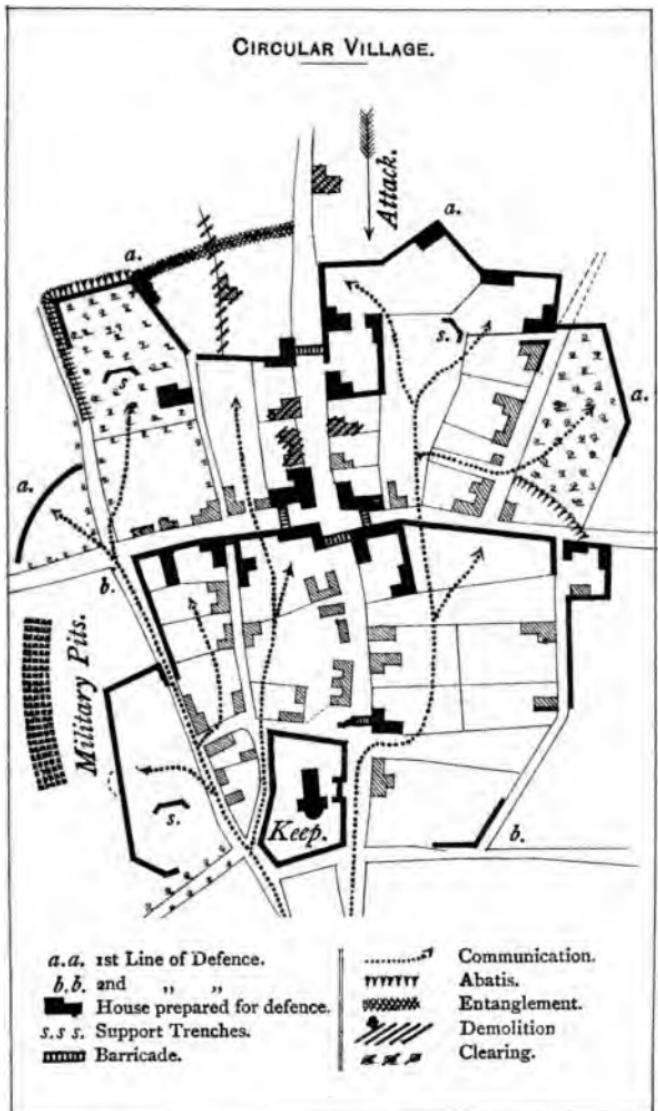


SCALE—6 IN. TO 1 MILE.

- House prepared for defence.
- |||| Abatis.
- ||||| Entanglement.
- Shelter Trench.

- Loopholed Wall.
- Barricade.
- Clearing.
- Shelter Trench.

DEFENCE OF VILLAGES.



A Summary of Tactics.

171. What difference is there in the defence of a village held as a detached post, and one held as an advanced post of a line of battle?

172. How is the defence of a village conducted?

A Summary of Tactics.

In the first case, it should be carefully surrounded, and everything done to make it as secure as possible, for the troops placed in it have nothing but their own exertions to depend on.

If held as an advanced post, the village gets support from the general line of battle, and should be made as strong as possible on three sides ; but on the side nearest the defender's position it should be open, having a line of shelter-trench about 250 yards in rear, with epaulements for Artillery, so that, if the enemy capture the village, they cannot use it as a *point d'appui* for further operations.

The shelter-trench will, moreover, effectually prevent the enemy's making a flank attack.

The first thing to be considered is the time at disposal, and the number of troops to defend it.

The defence should be divided into three lines—*Exterior*, *Interior*, and *Citadel*—with buildings beyond the exterior line, if time will allow of their being put in a state of defence.

The *exterior* line usually consists of walls, hedges, &c., found on the outskirts of the village. Strengthening these where most vulnerable, continuing them where necessary, selecting the buildings in front to be defended, and removing anything that would give cover to an attacking force, are the primary points to be looked to.

A Summary of Tactics.

172. How is the defence of a village conducted ?

A Summary of Tactics.

Obstacles running perpendicularly to the line of defence, and which would obstruct the assailant's lateral communication, may with advantage be left intact.

Marshes, ravines, streams, rivers, &c., may be utilised for the defence.

Rivers can be dammed to form inundations, thus saving the time required to strengthen that side of the village.

All approaches from the enemy should be blocked up. For this purpose, carts, abattis, &c., may be used.

Barricade all the entrances to the village in two parts, and let the obstruction be strong enough to resist a certain amount of Artillery. These should always have flank defence from the neighbouring houses. If time permits, the principal roads can be closed in a similar manner. Thus, while there is a good retreat, the defenders can, with confidence, obstinately resist every inch of ground.

Everything possible having been done to place the exterior line in a good state of defence, the next step to look to is the *interior* line, or the village itself. The main streets should be barricaded, and the houses giving a good fire on either them or the exterior line should be loopholed, care being taken to maintain free communication between all parts. Lateral communication is most necessary, so that troops may be easily reinforced by those from other parts not so much pressed.

A Summary of Tactics.

172. How is the defence of a village conducted ?

173. How are the troops disposed for the defence
of a village ?

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The *citadel* must now be selected. It should be a large stone building, made extra strong, so as to be able to hold out by itself (if necessary) till relieved. Should any buildings command it, they must be lowered, and, if time permits, those in its immediate vicinity should be removed, so as to bring the attackers under fire of the defenders, unprotected by cover.

Beyond stating that the troops for the defence are in three lines, with a special force detailed to garrison the citadel, no fixed rule can be laid down how they should be apportioned to the different lines.

The exterior line is *the* one to be held tenaciously.

Its possession by the assailants affords them equal cover to that of the defenders ; whereas, until they can effect a lodgment, they are unsheltered, and exposed to the full fire of the defender's force.

At that position should be posted as many Infantry as can conveniently use their rifles. These men should be retained in casemates, or other cover proof against Artillery fire, not taking their places until the enemy's Infantry advance, otherwise they would suffer severely from the opening fire of the assailant's Artillery.

The vulnerable points in the exterior line should have extra precautionary measures taken regarding them—such as bringing a flank fire to bear on the

A Summary of Tactics.

173. How are the troops disposed for the defence
of a village?

A Summary of Tactics.

ground in their front—extra supports to reinforce the defender's line, and reserves at hand to assist in a counter attack, if the attacking force pierces the line at these spots.

Thus no systematic regularity should be adopted in the disposition of the troops, whose position should be such as to produce a development of fire to support the weakest parts.

The *supports*, usually divided into several bodies for convenience of movement, should be posted under cover, at convenient distances in rear, to fill gaps in the front line, or to act as necessity requires. The best positions (if suitable in other respects) are close to the entrances to the village, which points, to be successful, must be ultimately gained by the attacking force.

The *reserve* should be at some central position in the village, or in rear of it, where it can make a counter attack or cover the retreat. In the latter case, its best place would be near the citadel, for while that is held it is impossible to pass it by, so that a direct advance at this point becomes difficult.

The *Artillery* should be posted either in rear of the village, if the ground there is commanding and otherwise favourable—as at St. Amand by the Prussians—or on or in rear of the flanks. Placing guns along the front is, as a rule, a mistake. If the ground is especially suitable from its commanding height, and

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173. How are the troops disposed for the defence
of a village?

174. How is the attack on a village conducted?

A Summary of Tactics.

with a good retreat secured, they may be so posted, but there they are generally more liable to capture or injury than at the other spots indicated. If placed within the lines, they should be sheltered by strong earthworks, and thus masked until required to act against the assailant's Infantry advancing to the attack.

The attack on a village is a difficult and generally a costly operation, and should only be attempted when the object justifies the loss.

Many hard-fought actions have taken place in the attack and defence of villages. Ligny, for instance, between the French and Prussians.

Burning will dislodge the enemy ; but if the attacking force have to pass through the village, it is a step to be avoided.

First see if the village can be turned. If not, and the village must be attacked, the action should commence with a concentrated fire of Artillery directed at both the enemy's guns and barricades, followed up by Infantry after the guns have had effect. The attacking troops should be accompanied by small parties of Engineers with tools, and a large detachment of Engineers should be held in hand, to push forward directly the exterior line is carried.

The Infantry advance should not take place till sufficient injury has been produced on the defender's

A Summary of Tactics.

174. How is the attack on a village conducted?

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position. Then it should be in open formation, which the improvements in modern fire-arms has rendered the more necessary.

At Le Bourget this was well exemplified. The Prussian attack was on three sides. The two columns, who had not sufficiently extended, and had renounced old formations too little, suffered heavily ; while the third, pressing forward on the left in long thin lines, succeeded in breaking into the village both from its flank and rear.

The mechanism of the attack was the rapid change from open to close order, directly the most trifling cover admitted of the rallying of a subdivision or company. On the other hand, every advance over open ground took place in widely-extended skirmishing lines, which moved on like ants.

There are certain points to be observed when a portion of the village has been carried.

Occupy large buildings, when once taken, to use in case of reverse.

Isolate those portions of a village where the defence is obstinate, and clear the rest of the village of the enemy.

The citadel should then be carried, if possible.

Re-form the troops, and put the side next the enemy in a state of defence.

Cavalry can take little part in the attack on a village, except in paralysing the enemy's action and covering a retreat.

CHAPTER XIX.

Convoys.

175. What sorts of convoys are there, and what are the two heads under which they are classed?

176. In what order should convoys move by road?

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C H A P T E R X I X.

Convoys.

Convoys by railway, by road, and by water, classified—

1. Those carrying supplies, ammunition, &c., from base of operations to the front.
2. Those conveying sick, wounded, or prisoners from the front to the rear.

Convoys *by road* are seldom used now-a-days. In the late war in Egypt, everything was taken to the front, and *vice versa*, either by rail or by water.

In these cases the strength will, of course, depend on the means at disposal; but by road, a convoy should, as a rule, not exceed the number of carriages that in single file would cover a mile of road. As circumstances sometimes necessitate the use of convoys by road, it will be as well to go into the subject.

In single file, no openings being allowed, except it becomes necessary to halt some of the carriages, and extra horse the others to advance up a steep hill or

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177. How is the strength of the escort regulated, and how is it distributed?

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over soft ground. If the road is extra wide (that three carriages could move abreast), the convoy may advantageously advance in double files. The delay in changing formation is so great, that this should not be adopted unless there are several miles of road of equal width. *Halts* should be made constantly, to rest the horses and close up the files; but the horses should not be taken out except at night, when the convoy is "parked." The "parking" ought also to be proceeded with at every long halt, for safety. Each convoy should be provided with spare carriages, wheels, &c., to repair any damage that may occur.

The escort should consist of Infantry, Cavalry, and Engineers.

Its *strength* should depend on the nature of the convoy, its value, its extent, the chance of meeting the enemy, the distance of its march, and the feelings of the inhabitants.

It should always have advanced and rear guards, flankers, and small bodies of Infantry from the main body, for the immediate head and rear of the column.

The *advanced* guard is composed mainly of Cavalry, who should, by reconnoitring widely to the front, make themselves acquainted with the country through which the convoy has to pass, the movements of the enemy, &c. To ascertain these points, it should push

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177. How is the strength of the escort regulated, and how is it distributed ?

178. How should the escort to a convoy act if the enemy is met with ?

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out between five and six miles to the front and flanks.

If a convoy has time to "park," it can make a strong defence; but if surprised on the march, it would be seriously compromised.

The head of the convoy is its weakest point, from the delay that must ensue if its leading waggons are stopped. A small detachment of Infantry is therefore posted there, to repel any attack that might be made by a party of the enemy's Cavalry, who may manage to slip in between the advanced guard and the main body.

The main body consists of Infantry, and its usual place is about the middle of the convoy. There it would be available to act as required. If, however, the flanks are secure, it might move at either the head or rear, whichever is most exposed to an enemy's attack.

The escort for a convoy of prisoners may be put down as ten Infantry and one Cavalry for every 100 prisoners. This escort should be subdivided, so as to be ready to act energetically at any moment; and when halted at night, should take every precaution.

Fighting should as much as possible be avoided, but if the enemy hold defiles, or other ground commanding the line of march, it is absolutely necessary they should be dislodged. To effect this, a sufficiently

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made to get away some of the convoy—or at least the horses.

If the enemy is not signalled as being in force, it would be best to keep the convoy moving on, leaving the escort to deal with the attacking force.

If there is a defile to be traversed, it should be carefully reconnoitred to the front and flanks, to ascertain that the enemy is not within attacking distance. To be attacked while passing through a defile, or issuing from it, would be dangerous in the extreme. The convoy is obliged to move in single file, and the limited space would prevent one part of the escort being quickly reinforced.

The advanced guard (supported by the main body, if the flanks and rear are secure) should pass quickly through, and take up a position at the outlet, to allow the convoy to "park" on arrival.

If the reconnoitring has not been satisfactorily concluded by the time the convoy reaches the defile, the first half should halt and "park," while the remainder should pass quickly and "park" at the far opening. The part "parked" at the near side should then move forward and resume its leading place in the convoy, also "parking" at the outlet if the enemy is near enough to attack. If at a distance, the convoy need not "park," but should proceed on its road. The escort should be well in hand to act as required. In

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179. What precautions should be taken when a defile has to be passed through?

180. How should the attack on a convoy be conducted?

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“parking” for a simple halt, the waggons should be ranged in lines 25 yards apart, poles or shafts facing in one direction, and horses in front of their waggons.

The force for the attack of a convoy can concentrate and act offensively at any point selected. The escort, on the other hand, is divided, and therefore acting under disadvantage. The assailants, moreover, can choose the time, and would avail themselves of a chance of surprising or attacking the convoy when passing a defile or over difficult ground.

If the attacking force can fall suddenly on a convoy when “parking,” when starting from its camp, when on the march before it has time to close up, from an ambush, or at a suitable part of the road, it has a decided advantage. This, however, can hardly be counted on, as, with the reconnoitring party of the convoy in advance, the commander ought to be well informed of his assailants’ movements.

If light guns are available, the attack might be made with them, supported by Cavalry.

As a rule, the attacking force should be composed of two-thirds Cavalry, one-third Infantry, and some light guns.

The flanks in an open and the extremities in a close country are the weakest points of a convoy.

If the attacking force is superior, it might attack on several points at once; if inferior, it can only attack

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the rear, or harass the convoy on every possible opportunity.

If the escort is beaten, the convoy, in its entirety or as great a portion of it as possible, should be moved off at once. If this cannot be done, the horses should be taken away and the carriages destroyed.

They are conducted similarly to those by land. The Cavalry will reconnoitre extensively on the side or sides next the enemy, and repulse any minor attack that may be made. By reconnoitring widely, the enemy are met with, and can be engaged at a distance from the convoy. Connecting files should be posted, to keep up the communication between the escort and the reconnoitring Cavalry.

Unless the convoy is towed by horses—in which case some of the Infantry should move along the banks—the Infantry should proceed in boats. By this means they are always at hand, fresh and ready to land and support the Cavalry.

The *attack* on a convoy is generally made by an ambush, but if the reconnoitring is properly effected, this cannot be done.

An open attack is met by landing the Infantry to support the Cavalry, and moving the convoy to the bank farthest from the enemy.

If the attack is repulsed, the Infantry re-embark and

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the convoy proceeds. On the other hand, if the escort is beaten, it should fall back fighting, and endeavour to effect the escape of the convoy.

Never let it fall into the enemy's hands ; sink it first.

If the attacking force can approach near enough to the convoy, it should open fire with its guns on the convoy, and its Infantry on the boatmen, following it along the bank till it is taken or destroyed.

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CHAPTER XX.

**Inferences to be drawn from the Tactics
displayed in late Wars.**

182. What fatal mistakes in the employment of Infantry in attack did the Russians commit in all the earlier actions of their last war with the Turks?

183. What measures were adopted later on to improve upon the dispositions then made?

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Inferences to be drawn from the Tactics displayed in late Wars.

They moved to the attack in two lines—formed by battalions in company columns, or in solid line—with a reserve.

They covered their front with skirmishers, but did not seek to reinforce them, or fill the gaps caused by casualties. Thus they were comparatively useless. The formation of lines at the commencement of the action was maintained throughout the battle, which usually resulted in defeat with serious loss. The improvements in fire-arms would foreshadow such a result, and has plainly shown the fallacy of troops moving to attack in solid formations.

Experience having proved the necessity of changing the formations hitherto so unsuccessful, General Skobeleff determined on adopting a new system. He formed a fighting line in extended order of three out of the four sections of the Rifle Companies of each battalion, retaining the fourth as a support to fill up gaps caused by casualties.

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183. What measures were adopted later on to improve upon the dispositions then made?

184. How do you explain the feeble part played by Artillery in that war?

185. To what causes are to be attributed the great success of the Turks when fighting on the defensive?

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The remainder of the battalion followed in line, with two paces between files, at a distance of 200 yards.

The 2nd battalion in the same formation advanced at 300 yards interval, with the 3rd battalion in reserve.

This alteration had a marked effect, as was subsequently shown by the success this general obtained at the Green Hills on the 11th September, and at Shenovo on the 8th January following.

The feeble part taken by Artillery was caused by the description of guns and projectiles used, and the errors made in the tactics.

Among the latter were the following :—

1. The guns opened for attack at too great a distance to be really effective.
 2. Enfilade and oblique fire were neglected, and too much dependence placed on direct fire.
 3. The fire was not concentrated on particular points, as it ought to have been, in order to destroy them in detail.
 4. The batteries did not advance to co-operate with the Infantry when the latter moved forward to the attack.
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The Turks never lost the chance of providing head-cover for their troops when acting on the defensive. During the whole of the enemy's preparatory Artillery

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185. To what causes are to be attributed the great success of the Turks when fighting on the defensive?

186. What does the necessity of providing hasty cover, whether in attack or defence, render imperatively necessary in the matter of equipment?

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fire, the Turkish soldiers were safely located in casemates or under other cover. Here they remained until the attacking force, counting on having shaken the defenders' position, launched their Infantry against it, and were met by a brisk fire from the defenders' Infantry, who left their places of concealment to repel the attack.

By adopting these tactics, they were wonderfully successful in repulsing all the assailants' efforts to effect a lodgment.

Now that the range of all arms is so materially lengthened, it becomes a matter of necessity, not only to make use of natural cover, but at times, both in the attack as well as in the defence, to raise hasty entrenchments. It is therefore necessary that entrenching tools should form part of the soldier's equipment.

It is only for light work these tools would be required—they can, therefore, be made of a substance whose weight would not seriously inconvenience the soldier. The Russo-Turkish war demonstrated the utility of suitable tools. By their means the Turks had a decided advantage over the Russians. This the latter were not slow in noting, and they gladly availed themselves of any rough implements they could secure—retaining them (although bulky and heavy) for the remainder of the campaign.

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187. On what principle did the Germans act in 1866 as regards the ranges at which Infantry fire was opened on the defence?

188. Would the experience of the last European war lead us to conclude that this principle is sound or not, now that the Infantry arm is still further improved?

189. What are the essentials to making long-range rifle-fire effective?

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Curious to relate, although the Germans had every opportunity of noting the very great success of long range Infantry fire, still, either from long-wedded custom or the absence of control, they appear to have neglected the advantages to be obtained by it, and adhered to their old limited ranges of from 300 to 400 yards.

The war of 1877 showed that long-range Infantry fire could no longer be neglected. The effect produced on the Russian troops at distances up to nearly 3000 yards was most marked. There is certainly a large expenditure of ammunition, but, when attended with results to counterbalance it, it would be foolish to argue against the use of the rifle at long ranges. The only thing is to overcome the difficulty of regulating its practice.

Nothing requires so much care and attention as long-range rifle-firing to make it effective.

The soldier must be taught to use his rifle both independently and collectively. Judging-distance drill, as practised at stated periods in the service, should be encouraged, so that the range can be fairly computed.

The Range-finder lately invented by Major Frank Weldon should be more generally used.

The men should be under strict control, and no firing at long ranges allowed, except by order.

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189. What are the essentials to making long-range rifle-fire effective?

190. Is it to be inferred that the importance of fire at short ranges is diminished?

191. Are there any inferences worthy of note to be drawn from the way attacks were conducted in the Russo-Turkish war?

192. In the late Egyptian war were any tactical movements out of the common adopted?

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In volley-firing, the men should be cautioned against discharging their rifles until they have carefully aimed; and if the distance is known, it should be stated with the preparatory order to fire.

The importance of short-range rifle-fire is in no degree diminished by the adoption of long-range firing. The latter is merely to supplement the former. Both are absolutely necessary in the primary and final stages respectively.

The first part of the campaign was remarkable for frontal attacks on positions. These all ended disastrously, and were subsequently replaced by other and more successful tactics.

The most notable, and one well worth bearing in mind, was Gourko's forcing the various passes of the Balkans. He made a feint in front with part of his forces, while with the remainder he turned the enemy's flanks, thereby obliging him to fight at a disadvantage or retire.

The attack at Tel-el-Kebir was commenced before daylight in the morning, and without any preliminary fire of Artillery to shake the enemy's position. This was a bold but successful stroke.

Cavalry were prominently used throughout the

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192. In the late Egyptian war were any tactical movements out of the common adopted?

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latter part of the campaign, and greatly distinguished themselves by the heavy losses they inflicted on the Egyptian infantry and gunners.

Mounted Infantry were advantageously employed. They performed the scouting — reconnoitred the enemy's lines—if close pressed, they dismounted, and, being well instructed in the use of the rifle, fired, usually with effect. It was not necessary for them to make a regular charge. Thus they could carry heavier weapons, and be therefore expected to use their arms with greater effect than the cavalry soldier could use his carbine.

The use of these troops was so plainly shown, that their organisation in future will probably be more closely attended to.



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